PERIODICAL ROOM
GENERAL LIBRARY
UNIV. OF MICH.

JUN 7 1930

American Vocational Association

NEWS BULLETIN

VOLUME V · · · · · NUMBER II

Become a
Life Member

PUBLISHED IN INDIANAPOLIS, INDIANA · · · · · MAY, 1930

"Here Come the Folks"

TIME and again that afternoon in 1838 the young blacksmith, John Deere, had dropped his tools and walked expectantly from his shop down to where the trail wound eastward across the prairie to the horizon.

It was the day when his family was due to arrive from Vermont; the wife and children whom he had not seen for a year; among them the infant son born a few months after John Deere had left Vermont to seek prosperity in the West.

Since ten o'clock in the morning wagons had been arriving from the East. Some stopped; some passed on toward the Mississippi; others branched off on trails leading northwest and southwest; none had carried those for whom the young blacksmith so eagerly looked.

He was ready for his family—ready to give them a future greater than any of which they had dreamed. With his own hands he had built a comfortable home. Far and wide, among farmers and mill men, he had established a high reputation as a blacksmith. But that which drew his dreams ahead was the steel plow which he had invented.

He knew he was in the midst of immense soil resources to which his steel plow was the key

ꝺ ꝺ

A small train of ox-drawn wagons toiled slowly into the village and stopped in front of the general store.

From the lead wagon a woman, carefully holding a little bundle, climbed down.

"Here, John, take your son," she said as she returned the joyful greeting of the tall man who had hurried to meet her. "I've carried him in my arms all the way from Vermont."

ꝺ ꝺ

All the way from Vermont! Across country by stage coach to Albany, New York; by canal boat to Buffalo; by lake boat up around the Michigan peninsula and down to Chicago; by ox-wagon, camping gypsy-style along the pioneer trail, westward from Chicago to the new home—a wearisome, dangerous journey of weeks and weeks.

That was the pioneer spirit—the spirit which led men and women from comfortable homes out into the wilderness to combat hardships unfamiliar to the present generation—the spirit that built the West—the spirit which the development of John Deere's pioneer farm equipment enterprise helped greatly to reward.

JOHN DEERE FARM EQUIPMENT

Leader in Quality for nearly a Century

JOHN DEERE
MOLINE, ILL.
THE TRADE-MARK OF QUALITY
MADE FAMOUS BY GOOD IMPLEMENTS

There's an "Oliver" machine for every need in your shop.

The well equipped shop includes the

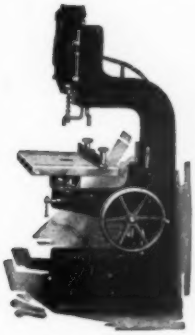
"Oliver" Wood Trimmer

THE "Oliver" Wood Trimmer is a versatile tool that will trim stock to any desired angle accurately. It makes any number of cuts with ease, speed and economy possible with no other similar tool.

It is indispensable in every up-to-date pattern and cabinet shop. In the school woodworking shop it has great value. The simplicity of the "Oliver" Wood Trimmer takes the drudgery out of otherwise tedious jobs. A precision machine throughout.

The equipment in your woodworking department is not complete without at least one "Oliver" Wood Trimmer. The Trimmer is safe and easy to operate. Inexpensive. Built to the same high standards for which all "Oliver" machines are known.

Full information on "Oliver" Wood Trimmers or other woodworking machinery cheerfully sent on request.



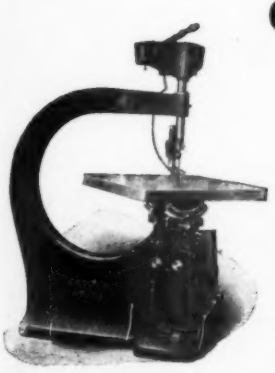
Motor Head Borer

Oilstone Tool Grinder

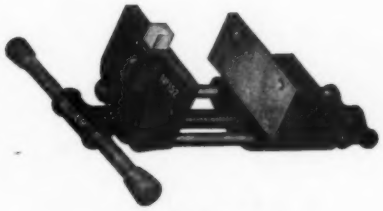
Speed Lathe

Oliver Machinery Company
Grand Rapids, Michigan, U.S.A.

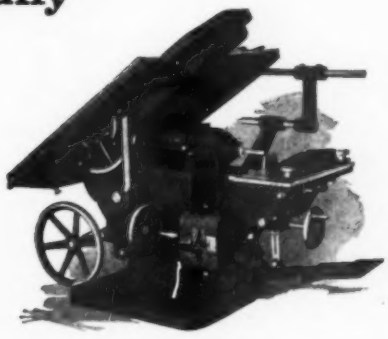
HIGH GRADE MACHINERY



Self-contained Jig Saw



Woodworking Vise

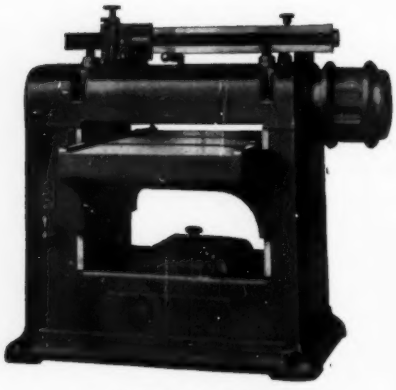


Variety Saw Bench

Modern methods of instruction demand MODERN machines

IT IS possible to teach the processes of woodworking through the use of antiquated tools—but it's unnecessarily complicated. Up-to-date machines are safer, easier to operate, more compact and a better bargain for your money all around.

The four Yates-American Machines shown here are excellent examples of modern engineering. They typify the progress in woodworking machinery that has resulted from today's demand for speed with safety and reliability. They exemplify the modern demand for ease of operation and more production per pound of metal. They are the Yates-American answer to industry's challenge.

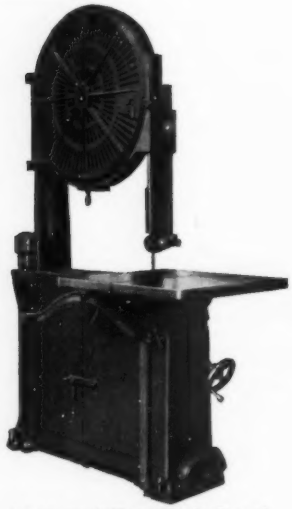


B-8 Single Surfacer

A larger machine than the B-4 and capable of greater production because of greater power. Up-to-the-minute in every detail. A machine that industry has proved to be absolutely safe, thoroughly reliable, accurate and a real producer. Ideal for technical schools, for advanced woodworking, and wherever a high quality surfacer, capable of turning out a great quantity of perfect work is required.

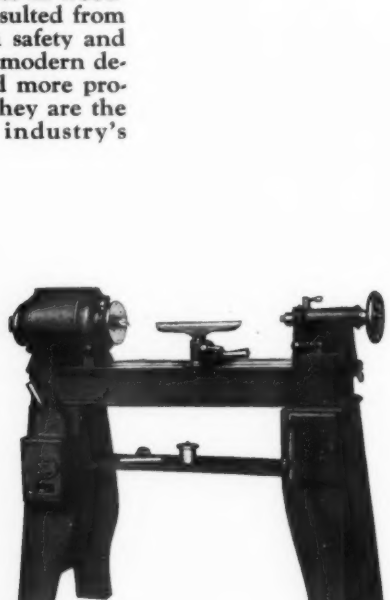
The New B-4 Single Surfacer

Especially designed to cover the range of work encountered in the school shop. Sturdy, compact, capable of withstanding terriffic abuse and yet extremely accurate. Safe—because there is not an exposed moving part and because adjustment and control are so simple. Point-for-point the most practical and economical surfacer for school use.



Y-30 and Y-36 High Speed Band Saws

The world's finest band saws; heavier, stronger, smoother running and faster than any other band saws made. Built in 30 and 36-inch sizes. Heavy, one-piece cast iron frame and aluminum wheels and guards put the weight where it belongs in order to asure rigidity and strength. Magnetic push button control.



No. 12 Speed Lathe

The most popular woodturning lathe because of its many superior features. Ball bearing headstock. 4-speed motor with simple, convenient, single-lever control. The safest lathe made. Available in several sizes and styles including such refinements as hand feed carriage and set over tail stock if desired. No. 12 has been adopted as standard for use in many schools and bears the highest endorsement by leading teachers and supervisors.

YATES-AMERICAN MACHINE COMPANY

VOCATIONAL DIVISION

BELOIT WISCONSIN

American Vocational Association
NEWS BULLETIN

VOL. V MAY, 1930 NO. II

PUBLISHED QUARTERLY BY THE AMERICAN VOCATIONAL ASSOCIATION

THE COMMITTEE ON PUBLICATIONS

R. W. GREGORY, CHAIRMAN
ROOM 225 STATE HOUSE

ADDRESS COMMUNICATIONS PERTAINING TO ADVERTISING to STUDIO PRESS, *Publishers* 340 Century Bldg. Indianapolis

Z. M. SMITH, SECRETARY
INDIANAPOLIS, INDIANA

ANNUAL SUBSCRIPTION PRICE TO MEMBERS OF THE ASSOCIATION, TWENTY-FIVE CENTS

ENTERED AS SECOND-CLASS MATTER SEPT. 8, 1926, AT THE POST OFFICE AT INDIANAPOLIS, IND., UNDER ACT OF MARCH 2, 1879

THE PRESIDENT'S MESSAGE

PAUL W. CHAPMAN, *President of the American Vocational Association, Athens, Georgia*

At the annual banquet held in New Orleans last December, you may recall that Dr. Cooley expressed the hope that the American Vocational Association might soon have 1,000 life members. In my opinion, we should accept this number as a goal to be reached within four years. This would make our quota before next December 250 life members. I see no reason why we should not exceed this number.

You have received a letter from our Secretary explaining a plan whereby anyone can easily become a life member. If you have not already mailed Dr. Z. M. Smith a signed membership card, won't you do so today?

You understand, of course, that all money derived from life memberships will go into our endowment fund. None of it will be used for current expenses. In this way every $100 contributed to the organization will continue to work for vocational education indefinitely. An endowment of $100,000 would give permanence to our organization and make it possible for us to engage upon a program of activity not possible at present. Our greatest need at present is to make such a program of work possible. The outcome depends upon your cooperation.

* * * *

You will be interested to know that during the past month your president, secretary, and L. W. Wahlstrom of Chicago, who is in charge of our commercial exhibits, went to Milwaukee to make preliminary plans for our next convention. We were welcomed by an enthusiastic group of educational leaders from Wisconsin who pledged their best efforts to make our convention next December 1-13 the best in the history of vocational education associations.

It is to be a great convention! Wisconsin will have approximately 1,000 members in the A. V. A., at that time and most of them will be present. Milwaukee is centrally located. It is near the great states of the Middle West, most of which have state organizations with large membership affiliated with the A. V. A. It is not far from the industrial states of the East; and only a night's ride from the majority of our Southern members.

We are anxious to have a program that will be worth while. You can help. The sectional programs are now being developed by the vice-presidents, and the president is arranging for the speakers on the general programs. Won't you please write and give the members of your executive committee suggestions as to speakers and topics? This help will be greatly appreciated.

* * * *

Legislation is a subject of interest to all of us. The A. V. A. has been assisting in the effort to provide for the continuation of the Civilian Rehabilitation Act which expires by limitation, June 30. The new bill has been favorably reported by the House Committee on Education. There is little doubt but that it will be passed before Congress adjourns.

Our Bill providing additional funds for trade, industrial, and commercial education has been introduced. Mr. Reed, Dunkirk, New York, chairman of the Committee on Education, introduced the measure in the House of Representatives (H. R. 10821). In the Senate our bill, identical with the House bill, was introduced by Senator Capper of Kansas (S. 3969).

Practically the same legislative committee, which so ably represented our association in connection with the passage of the George-Reed Act during the closing days of the administration of President Coolidge, is again on the job. We need have no fear concerning the outcome of this effort. It is merely a matter of time, for the thinking people of this country know that vocational education of the right sort is essential to the continued prosperity of the nation.

* * * *

Our association is each day making effective contacts. Since our last bulletin was published an A. V. A. committee has appeared before the National Advisory Committee on Education, better known as the "Wilbur Committee." We were given a most cordial reception and sympathetic hearing. This committee will not make a report that will be detrimental to the further development of vocational education.

The White House Conference on Child Health and Protection has appointed a sub-committee on Vocational Training. Our former president Dr. Edwin A. Lee, is chairman of this committee. The A. V. A. is cooperating in this work.

We are also meeting groups of employers and employees and all others interested in the training of those persons engaged in worthy occupations and the relation of this training to the social and economic welfare of the people of the United States.

✦ ✦ ✦ Become A Life Member ✦ ✦ ✦

OFFICERS OF AMERICAN VOCATIONAL ASSOCIATION

PAUL W. CHAPMAN, *President*
State Director of Vocational Education
Athens, Georgia

Z. M. SMITH, *Secretary*
State Director of Vocational Education
Indianapolis, Indiana

CHARLES W. SYLVESTER, *Treasurer*
Director of Vocational Education
Baltimore, Maryland

EXECUTIVE COMMITTEE

PAUL W. CHAPMAN, *President*
State Director of Vocational Education
Athens, Georgia

L. R. HUMPHERYS
State Supervisor of Agricultural Education
Salt Lake City, Utah

MISS BEULAH I. COON
Assistant Professor of Home Economics Education
University of Chicago
Chicago, Illinois

Z. M. SMITH, *Secretary*
State Director of Vocational Education
Indianapolis, Indiana

MISS EMILY G. PALMER
In Charge of Research and Service
University of California
Berkeley, California

MISS REGINA E. GROVES
Supervisor of the Commercial Department and
Teacher Trainer for the State Board
for Vocational Education
Madison, Wisconsin

CHARLES W. SYLVESTER, *Treasurer*
Director of Vocational Education
Baltimore, Maryland

R. L. COOLEY, *President*
Director of Vocational Education
Milwaukee, Wisconsin

H. L. STANTON
State Supervisor of
Vocational Rehabilitation
Raleigh, North Carolina

WESLEY A. O'LEARY
Deputy State Commissioner of Education
Trenton, New Jersey

THE NEWS BULLETIN
Published by The American Vocational Association

R. W. Gregory, Editor
Room 225, State House
Indianapolis, Ind.

Z. M. Smith, Business Manager
Room 225, State House
Indianapolis, Ind.

Report of the A. V. A. Committee on Standards

Reprinted from the May, 1930, Number of the Industrial Education Magazine. By permission of the Manual Arts Press, Peoria, Illinois.

In response to a demand for additional copies, the Executive Committee of the American Vocational Association has arranged to reprint in pamphlet form for general distribution the report of the Committee on "Standards of Attainment in Industrial-Arts Teaching," Emanuel E. Ericson, chairman, State Teachers College, Santa Barbara, California. This report, presented at the New Orleans convention in December, 1929, has attracted much favorable attention, and the general opinion seems to be that the study thus begun should be prosecuted vigorously.

With the prestige and support of the American Vocational Association, the workers in the manual-arts movement are confronted with an exceptional opportunity to capitalize on a splendid piece of research study. According to the view expressed by a number of the leaders, the next step in the development of the manual-arts program should be the completion of this investigation. Further progress demands some sort of general agreement on the fundamentals for which we stand.

An Appeal for Cooperation

A few shop teachers and supervisors have seemed to shy away from agreement on the fundamentals, largely because of a mistaken apprehension lest "standardization" might lead to limitations upon initiative and to rigidly-prescribed courses of instruction. The work of the A. V. A. committee, however, has demonstrated clearly that such fears are groundless, and it has pointed the way to definite progress.

Individual shop teachers are urged to cooperate with the Committee by securing copies of the report, and using them in one or more of the specific ways suggested in the introduction to the report itself. Further, shop teachers should aid in the revision of the outlines by offering suggestions as to items or units that should be eliminated or added. The outlines are in such definite form that any shop teacher can readily determine whether he agrees or disagrees on any individual item; and he can doubtless give definite reasons without much trouble. Correspondence and suggestions should be addressed directly to the chairman of the Committee.

Supervisors and directors have an excellent opportunity to contribute to the work by holding discussions of the various outlines in connection with regular teachers' meetings, or in conferences with groups of teachers especially called for the purpose. I have been wishing that this report might have appeared during my term of service in Tulsa. At very small expense I could have placed a copy of the pamphlet in the hands of each shop teacher and made it the basis of discussion at a series of staff meetings. I am certain that that group has something decidedly worth while to contribute, representing as it does a number of different points of view and many years of successful experience in teaching.

Doubtless other supervisors view the matter in the same way, and will welcome this opportunity to bring the members of their staffs into a discussion of a very vital professional problem. The publication of this report, and the definite results that may well be expected to follow if we all take hold, have been described as "the biggest thing on the horizon at the present time." I sincerely hope there will be a prompt and vigorous response, which will demonstrate unmistakably to the officers of the A. V. A. that the manual-arts men are very much alive—something which I understand they already strongly suspect.

Send for the Report

The report of the Committee was published originally in the January, 1930, Number of this Magazine; see pages 263-267. Copies of the reprint in pamphlet form, at ten cents each, may be obtained by addressing the Secretary of the American Vocational Association, Dr. Z. M. Smith, State Department of Education, Indianapolis, Indiana. The nominal charge of ten cents pays only a part of the cost for printing and postage. In the new pamphlet form the report is much more convenient to handle and work with.—W. T. B.

MILWAUKEE

Already things are beginning to take shape for the greatest meeting that the American Vocational Association has ever held.

The Hotel Schroeder will be the Headquarters Hotel. It is new, magnificiently equipped and central.

All meetings will be held in the Auditorium of the city of Milwaukee and in the Milwaukee Vocational School. The latter is located just across the street from the Auditorium which insures convenience for everyone such as we have never had before.

Organization meetings have been held. Dr. Cooley, past president of the A. V. A. is to be Convention Chairman which alone is enough to guarantee something being done in a fine fashion.

Paul Chapman, president of the American Vocational Association, and Dr. Z. M. Smith, secretary, met with a group of Milwaukee and Wisconsin educators on Saturday, March 22, to complete plans for the convention. The following action was taken:

Memoranda on the Preliminary Organization Meeting for the A. V. A. Convention, held at the Schroeder Hotel, Milwaukee, Wisconsin, at 12:00 o'clock noon, on Saturday, March 22, 1930.

Mr. Milton C. Potter, Superintendent of Schools, Milwaukee, was the first speaker. In the course of his brief talk, he said, "Only through the materials that are poured into human lives can there be any value to the humans at

all . . . Only by reason of complete lives can we have ample living." Speaking for the School Board, he said, "We have all pledged ourselves to assist you in making it a great convention here next fall."

Mr. Paul Chapman, President of the American Vocational Association, was then called upon by Mr. Cooley. "Jimmy Walker of New York says, 'Never make any preparation for a speech.' I have not made any preparation for my address today, because I believe this advice is good; and besides, I did not know until 10 o'clock this morning that there was going to be any meeting like this. I have been with Mr. Cooley and Mr. Smith and Mr. Hambrecht ever since and have not had time to collect my thoughts."

Mr. Cooley: "But you have had time to gather a few, haven't you?"

Mr. Chapman: "We are gathered here in the interests of the American Vocational Association. I would like to say a few words about the convention of the A. V. A. I am happy to tell you that never in the history of the vocational education movement in this country, from its very inception, has there been an organization back of that movement that is so flourishing and so promising as the A. V. A. is just now.

"We have a larger membership today than we have ever had before. Work in vocational education, in my opinion, is going forward in this country much more rapidly, and people are dealing with it much more enthusiastically than ever before. However, I am not going to give you any instances of that kind just now.

"Another thing, our organization has an aggressive policy. We have under way, just now, a great many important things designed to increase the scope of our work. For some years we have been talking about the need for increased funds. Two years ago, our organization sponsored a bill to provide additional funds for agriculture and home economics. That bill has become a law. I have with me today printed copies of the bills now pending in Congress, one in the House, the other in the Senate, to provide additional funds for trade, industrial, and commercial education. I am just as confident that these bills will become laws as I am that I am before you now talking about them.

"I can say without any hesitation, that, in my opinion, those of us who are so unfortunate as to live outside of the State of Wisconsin owe more to you people for the progress that I have just recited, than pretty near all of the rest of the people in the United States put together. I am not saying that to flatter you people. I am here making a statement like that to express the gratitude that we feel to the people in Wisconsin, for everything you have done in the past to help promote vocational education and to bring to those of us who knew less about it, some of your experience. I have heard the work of the state of Wisconsin discussed more in conferences where people are talking about improving their programs, than I have any other one state.

(Example: Instance of Rotary Clubs taking up Boys' Work Committees and Guidance. Half dozen people in Chicago making painstaking and careful study of vocational guidance, vocational training, and placement. Had made arrangements to send representatives to the state of Wisconsin in order to get first hand knowledge of programs worked out in actual practice.)

"What I will say next December at the convention will run something like this: 'I take great pride and pleasure this evening in saying that in all the history of the conventions, this organization, and those that preceded it, we have never had such a large number of delegates as we have here. We have never had a better program than we have for you this year, and I am sure that, judging from all the meetings that I have attended, there has never been one from which you will derive as much pleasure and benefit as you will from this one in Milwaukee.' Now, in a general way, that is about the way I am going to start out. There is no doubt in my mind that everything I have said, and some more I am going to say, is going to be true.

"I will tell you why I think Wisconsin is the best affiliated society of the A. V. A.

(1) It has the second largest number of memberships.

(2) It has consistently sent the largest number of delegates to the conventions, no matter where they were held.

(3) It is centrally located.

(4) It has the largest affiliated society (Illinois) close by, with Ohio and Indiana not far away.

(5) The meeting is to be in the city of Milwaukee, which has the most outstanding vocational institution in the United States. People are eager for an opportunity, an excuse, to come here and learn more about the Milwaukee Vocational School.

"I have heard Dr. Cooley make his speeches about the philosophy back of vocational education many times. I have read his literature and shall probably read it many more times.

"One of his points is that vocational education makes customers. Mr. Cooley did not give me the figures that proved his point, however, so I found them out myself. Of the 157,000 families in the city of Milwaukee, 128,000 own at least one automobile. The department stores in this city last year sold 425 million dollars worth of goods. Your income taxes in Milwaukee increased 22% while those of the U. S. as a whole decreased 2%. You built four million dollars worth of buildings and ranked sixth among all of the cities of the U. S. in the amount of building that was done.

"That it does produce customers has certainly been true so far as Milwaukee and Wisconsin are concerned.

* * * *

"Now I hope you folks will do all of these things, and put the convention over in this way so that I can use this speech which I have already made up."

Mr. Z. M. Smith, Secretary of the American Vocational Association, was called upon next. He recited the "funeral service" in Buffalo, in 1923, when the members decided there were not enough of them to hold another annual meeting. A conditional invitation was extended to meet in Indianapolis. With a membership of less than 700, and an indebtedness of $3,300, they ended with a membership of over 1200, with the indebtedness paid, and about $1,000 in the treasury. So they had a meeting in Cleveland, and then in Louisville; in Los Angeles, and Philadelphia; and last year in New Orleans. All that time the organization has been growing in numbers.

"I have already outlined to Mr. Cooley the set-up that will enable you to put on in Milwaukee the best convention that any association has ever put on. He may modify it in any way that will be most effective. The A. V. A. expects Milwaukee and Wisconsin to put on this convention and carry it through.

"The officers of the Association have the responsibility for naming the local chairman in charge of general arrangements. We have decided that the man who can lead the forces in this city and in this state is R. L. Cooley. Unless there is serious objection in Milwaukee and Wisconsin, we would like to ask him to take the responsibility of taking the local chairmanship of this committee.

"This is the largest attendance at a preliminary organization meeting of any meeting that we have had anywhere in the United States, with the exception of Los Angeles, where the meeting was made a joint affair with another local organization.

"I fully expect that that speech Mr. Chapman has already outlined to you will be 100% appropriate on December 10, when the fifth annual convention of the A. V. A. is opened here in your city."

Mr. Hambrecht moved that the suggestion of the Executive Committee of the A. V. A. that Mr. R. L. Cooley be general chairman, be put in the form of a motion. Motion was made, and seconded. The vote was unanimous

Preliminary organization meeting for the Milwaukee Convention.

List of attendance at the preliminary conference for the American Vocational Association convention, held at the Schroeder Hotel, Milwaukee, Wis., at 12:00 o'clock noon, March 22, 1930.

A. V. A. OFFICERS

Paul W. Chapman, President, Athens, Ga.
Z. M. Smith, Secretary, Indianapolis, Ind.

From Milwaukee, and the State of Wisconsin

MADISON—John Callahan, State Superintendent of Public Instruction; Geo. P. Hambrecht, State Director of Vocational Education; W. F. Faulkes, State Supervisor, Rehabilitation.
MILWAUKEE—J. H. Lasher, Rehabilitation Division.
MADISON—O. H. Johnson, State Rehabilitation Office; Chas. Beardsley, State Rehabilitation Office; H. C. Thayer, State Supervisor, Teacher Training; Regina E. Groves, Supervisor of Commercial Dep't., and Teacher Trainer, State Board for Vocational Education; Louis M. Sasman, State Supervisor, Agriculture; Ivan G. Fay, Itinerant Teacher Trainer.
MENOMINIE—Clyde Bowman, Dean, School of Industrial Education, Stout Institute.
KAUKAUNA—B. D. Rice.
SHEBOYGAN—J. G. Childs, Coordinator, Vocational School.
APPLETON—H. G. Noyes, Joint Coordinator, Adult Trade Extension.
MADISON—J. H. Brown, Labor Temple.
MILWAUKEE—Frank Bruce, Bruce Publishing Co.; John J. Metz, Bruce Publishing Co.; Dr. Stewart Scrimshaw, Professor of Industrial Relations, Marquette University; Dr. John A Lapp, Professor of Social Sciences, Marquette University; Dr. C. M. Purin, Director of Extension Division, University of Wisconsin; Milton C. Potter, Superintendent of Schools; Charles F. Perry, Public School Board; Miss Ella L. Babcock, Public School Board; Miss Ora Blanchar, Principal, Girls' Technical High School; James L. Cox, Principal, Boys' Technical High School; Earl L. Ferguson, Manager, Milwaukee Association of Commerce, Convention Bureau.

Chicago, Ill.

L. W. Wahlstrom, 330 Webster Avenue, Manager of Exhibits for the A. V. A.

Representatives from the Milwaukee Vocational School:

R. L. Cooley, Director
Wm. F. Rasche, Principal
R. B. Otis, Directing Engineer
R. H. Rodgers, Chief, Teacher Training and Research Dept.
Elizabeth Tonigan, Supervisor, Clothing
Isabel Scholl, Supervisor, Foods
Frank A. Maas, Supervisor, Personal Problems
Miss Lenys Laughton, Supervisor, Commercial Dept.
Mrs. Cora Belding, Girls' Counselor
R. W. Tarbell, Teacher Training Dept.
Harry S. Belman, Teacher Training Dept.
Wm. F. Patterson, Director Employment and Guidance Dept.
H. M. Winkel, Instructor, Commercial Dept.
Ray J. Matasek, Instructor, Commercial Art
Mrs. Harriet Paul, Instructor, Home Making Division
Mrs. Florence Van de Wall, Instructor, Home Making Division
James Sidlow, Instructor of Apprentices
R. N. Hurless, Instructor, Foundry
Benjamin Frey, Instructor of Apprentices
Henry Wagner, Instructor, Painting and Decorating
Marie Davidson, Secretary to Mr. Cooley

City Vocational Directors, Wisconsin:

A. M. Bleyer, Oshkosh; A. A. Kruschke, Two Rivers; O. J. Dorr, Fond du Lac; A. L. Nimtz, Manitowoc; Harry P. Hurley, West Allis; Herb Heilig, Appleton; Jacob Spies, Sheboygan; Harley M. Brook, Eau Claire; B. C. Trueblood, Watertown; A. G. Western, South Milwaukee; H. O. Eiken, Green Bay; T. S. Rees, Racine; Wm. T. Sullivan; Kaukauna; L. H. Funkey, Stoughton; J. E. Tepoorten, Cudahy; A. G. McCreary, Beloit.

---

in favor of Mr. Cooley's taking this chairmanship.

Mr. Cooley responded to the election, saying that he recognized the distinction and the honor. Mr. Hambrecht then spoke a few words in behalf of the State Board of Vocational Education, and Mr. John Callahan spoke for the State Board of Public Instruction. Dr. Lapp of Marquette University spoke of the organization's growth from the stage of "infancy, in swaddling clothes," to its present state, as he finds it, "in frock coat, silk hat, carrying a cane, and with money in its pocket." He remarked that in the early days of the National Society for the Promotion of Vocational Education, a group the size of the meeting present would have been a good sized convention by itself.

LIFE MEMBERSHIPS IN AMERICAN VOCATIONAL ASSOCIATION, April 1, 1930

STATE	No.
Alabama	1
District of Columbia	2
Indiana	2
Louisiana	1
New Jersey	1
New York	1
West Virginia	1
Total	9

AMERICAN VOCATIONAL ASSOCIATION, Inc.
Membership April 1, 1930.

STATE	Not Classified	Agri.	H. E.	T. & I.	Ind. Arts	Rehab.	Commerce	Business	Total
1. Alabama	9	118	55	38	1	10	.....	.....	231
2. Arizona	.....	16	2	4	.....	.....	.....	.....	22
3. Arkansas	51	.....	.....	.....	.....	.....	.....	.....	51
4. California	14	25	1	123	17	4	5	.....	189
5. Colorado	1	44	1	.....	1	.....	.....	.....	47
6. Connecticut	.....	6	1	131	.....	.....	.....	39	177
7. Delaware	11	11	27	28	23	.....	15	.....	115
8. Florida	5	30	1	6	.....	.....	.....	.....	42
9. Georgia	.....	97	78	72	.....	6	.....	.....	253
10. Hawaii	1	.....	.....	.....	.....	.....	.....	.....	1
11. Idaho	.....	24	1	1	.....	1	.....	.....	27
12. Illinois	.....	2	42	166	553	.....	130	11	906
13. Indiana	22	125	63	134	52	1	6	.....	403
14. Iowa	8	106	4	46	.....	.....	1	.....	165
15. Kansas	1	86	3	64	.....	.....	.....	.....	154
16. Kentucky	9	39	29	17	4	2	3	.....	103
17. Louisiana	.....	46	12	71	31	.....	1	3	164
18. Maine	.....	24	71	50	.....	.....	.....	.....	145
19. Maryland	.....	7	16	47	12	1	4	.....	87
20. Massachusetts	.....	.....	.....	7	.....	.....	.....	.....	7
21. Michigan	3	27	21	95	.....	.....	9	.....	155
22. Minnesota	2	3	12	32	10	1	4	1	65
23. Mississippi	6	83	54	14	.....	1	.....	.....	158
24. Missouri	.....	128	78	118	11	.....	6	.....	341
25. Montana	.....	.....	.....	1	.....	.....	.....	.....	1
26. Nebraska	1	21	2	3	.....	.....	.....	.....	27
27. Nevada	1	9	11	8	.....	2	.....	.....	31
28. New Hampshire	.....	.....	.....	1	.....	.....	.....	.....	1
29. New Jersey	5	31	9	42	4	.....	.....	.....	91
30. New York	.....	1	13	746	75	.....	5	.....	840
31. New Mexico	.....	12	11	5	.....	.....	.....	.....	28
32. North Carolina	.....	42	11	6	4	2	.....	.....	65
33. North Dakota	3	35	1	.....	.....	.....	.....	.....	39
34. Ohio	.....	184	106	299	.....	2	.....	.....	591
35. Oklahoma	2	83	22	39	.....	.....	.....	.....	146
36. Oregon	1	31	23	21	3	.....	.....	.....	79
37. Pennsylvania	34	101	103	229	.....	7	.....	2	476
38. Rhode Island	.....	.....	.....	.....	.....	.....	.....	.....	None
39. South Carolina	3	118	53	4	.....	1	.....	.....	179
40. South Dakota	2	1	1	1	.....	.....	.....	.....	5
41. Tennessee	.....	1	8	86	.....	1	1	.....	97
42. Texas	13	175	69	127	.....	1	2	2	389
43. Utah	.....	27	2	.....	.....	.....	.....	.....	29
44. Vermont	.....	1	.....	2	.....	.....	.....	.....	3
45. Virginia	3	97	65	52	37	1	.....	.....	255
46. Washington	.....	24	.....	.....	.....	.....	.....	.....	24
47. West Virginia	.....	35	6	32	.....	.....	.....	.....	63
48. Wisconsin	4	90	137	391	.....	2	.....	.....	801
49. Wyoming	.....	30	1	1	.....	.....	.....	.....	32
50. District of Columbia	15	.....	.....	.....	.....	.....	.....	.....	15
51. Canada	2	.....	.....	.....	.....	.....	.....	.....	2
TOTAL	234	2196	1226	3350	838	46	366	61	8317

And Still the A.V.A. Grows

Nebraska Vocational Agricultural Ass'n

We have now received dues from twenty men engaged in some phase of vocational agriculture work and shall complete our affiliation with the American Vocational Association at once.

Every instructor in the state should join our association and thus become affiliated with the A. V. A. In some other states the dues are higher than ours will be for the next fiscal year and are budgeted for certain purposes including a small amount of aid to teams representing the state in national contests. Men who have not paid the $1.25 for the remainder of this year should send it in at once.

Following is a list of the men whose dues have been received at the time this is written and who will be charter members of our association:

E. W. Bailey, Filley
H. E. Bradford, Lincoln
L. D. Clements, Lincoln
Allen Cook, Kearney
R. A. Drishaus, Ashland
Homer Farrar, Holmesville
R. M. Kildee, Eagle
J. A. Kovanda, Ord
I. E. Lindstrom, Milligan
C. C. Minteer, Lincoln
V. J. Morford, Seward
H. F. Peters, Hastings
E. I. Rosenberger, Pawnee City
L. L. Rulla, Geneva
J. L. Roth, Hay Springs
G. E. Scheidt, Scotia
G. A. Spidel, Waverly
James O. Tilly, Ainsworth
J. E. Tuning, Milford
Harold F. Vance, Ponca

—From the Nebraska Vocational Agriculturist.

Legislative Committee

American Vocational Association 1930

1. C. M. Miller, chairman, State Director of Vocational Education, Topeka, Kansas.
2. L. H. Dennis, Deputy State Supt. of Public Instruction, Harrisburg, Pa.
3. Wesley A. O'Leary, Asst. State Commissioner of Education, Trenton, New Jersey.
4. Geo. P. Hambrecht (President, Directors Association) State Director of Vocational Education, Madison, Wisconsin.
5. Ray Fife, State Supervisor of Agricultural Education, Columbus, Ohio.
6. O. D. Adams, State Director of Vocational Education, Salem, Oregon.
7. Miss Jessie Harris, Head Dept. of Home Economics, University of Tennessee, Knoxville, Tennessee.
8. Charles W. Sylvester, Director of Vocational Education, Baltimore, Maryland.
9. H. A. Tiemann, Supervisor of Trade and Industrial Education, Ft. Collins, Colorado.
10. L. A. Wilson, Asst. Commissioner for Vocational and Extension Education, Albany, New York.
11. Thomas H. Quigley, Professor of Industrial Education, Georgia Tech, Atlanta, Georgia.
12. L. B. Travers, Director of Adult and Continuation Education, Oakland, California.
13. L. R. Humpherys, State Supervisor of Agricultural Education, Salt Lake City, Utah.
14. R. L. Bynum, State Supervisor of Vocational Rehabilitation, Nashville, Tennessee.
15. F. G. Nichols, Associate Professor of Education, Harvard University, Cambridge, Massachusetts.

ADVISORY

16. R. L. Cooley, Director of Vocational Education, Milwaukee, Wisconsin.
17. Charles A. Prosser, Director, Dunwoody Institute, Minneapolis, Minnesota.

Ocean City Summer School

The 1930 session of this nationally famous State Summer School will open on June 30 and will close on August 2. This school is conducted by the New Jersey State Board of Education. Chief among the courses offered are those in Printing. Four courses, Principles and Practices, Teacher Training, Linoleum Block and Professional Subjects constitute the major work offered in this subject. They are under the personal direction of Frank K. Phillips, manager of the Education Department of the American Type Founders Company, Jersey City, New Jersey.

The Printing Courses have been conducted in the Ocean City State Summer School since 1915. During that time students have been enrolled from nineteen states, including nearly all along the Atlantic Seaboard and as far west as Idaho and as far south as Alabama. So far as can be learned no state has ever refused to accept the certificates nor has any university failed to acknowledge the college credits awarded by the printing department of the Ocean City State Summer School.

As the major course in the Printing Department is a "Methods" Course, a large outfit is not necessary. No instruction in machine composition, cylinder or automatic presswork is furnished. The printing outfit corresponds to that usually installed in a junior high school.

LIFE MEMBERS

in the

American Vocational Association, *Inc.*

ENTHUSIASM for life memberships in the A. V. A. is growing. Expressions of approval of this far-reaching step in the development of the association and its program are voiced by representatives from every section of the United States. The outlook is encouraging for a total of 1000 members, within a comparatively short time, in this highly-valued class of membership. With an endowment fund of not less than $100,000.00, the sum which 1000 life memberships will provide, the A. V. A. will be on a footing financially that will make possible a continuous, aggressive program of constructive activities. This fund will be used as an endowment as provided in the Constitution.

Each of the more than 8000 members of the A. V. A. could render the cause of vocational education a great service by joining with nine others in his or her locality in securing *at least one* A. V. A. life membership. This one membership could be secured in one of several ways, as, for example: (1) by interesting a man or woman who will pay the one hundred dollars for a life membership, (2) by each of the ten in the group contributing ten dollars on a life membership for a friend actively interested in vocational education, (3) by inducing an organization such as a school, a local or State educational association, a business firm, a civic club, to purchase a life membership as a means of honoring a worthy friend of vocational education.

Why not set up as an immediate goal for the current year, *for each State Vocational Association*, the securing of a minimum of two life memberships? Several States could go beyond this goal this year. What better activity could a State Vocational Association sponsor than to organize its membership into local, county or district groups of ten and to inspire each group to secure at least one life membership, locally, in the A. V. A.! The present is the time for action on this matter. Why delay!

Z. M. SMITH, *Secretary*.

Send application to Z. M. Smith, Room 225, State House, Indianapolis, Indiana.

APPLICATION BLANK

I, ..., Official Title.....

P. O. ....., State.....

hereby apply for life membership in the American Vocational Association for myself or

.....

(If not for self, insert above the name and address of the beneficiary.)

New Life Members

JOHN A. LINKE

Mr. John A. Linke, Agricultural Agent for the Federal Board for Vocational Education since 1917, has been made the recipient of a Life Membership in the American Vocational Association by the vocational agriculture teachers and state leaders of the North Central Region. The presentation was made at the Welch Banquet session of the Regional Conference at Chicago in March by State Supervisor E. E. Gallup of Michigan. It came from these

Continued on Page 10

WESLEY A. O'LEARY

Mr. Wesley A. O'Leary, Assistant Commissioner of Education in New Jersey in charge of vocational education, was born at Southborough Massachusetts. He was educated in the public schools of Massachusetts and Dartmouth College at which institution he was graduated in 1895. He also studied at the Massachusetts Institute of Technology and the summer schools of Harvard and Clark Universities.

He served his apprenticeship as a teacher in the rural schools of New Hampshire and Vermont while a student at Dartmouth. After a short period in industry he became a teacher in the public schools of his native town. Two years later he entered private school work, serving successively in St. Mark's School and the Worcester Military Academy. In 1900 he returned to public school work as first assistant in the Portsmouth, New Hampshire, High School. After eight years as principal and teacher in the public schools of Portsmouth and New Bedford, Massachusetts, he became director of the New Bedford Vocational School. He served four years in this position and then joined the faculty of Pratt Institute where he had charge of the training of vocational teachers. In 1914 he established the Essex County Vocational School and became its first director. Three years

Continued on Page 10

R. W. GREGORY

The vocational agriculture teachers of Indiana presented R. W. Gregory, Assistant Professor of Agricultural Education at Purdue University, with a Life Membership in the American Vocational Association. The presentation was made at the annual meeting of the North Central Regional Conference in Chicago in March.

Mr. Gregory was born and reared upon a farm in Morgan county, Indiana. After graduating from high school

Continued on Page 10

NEW LIFE MEMBERSHIP PLAN

The executive committee of the A. V. A. has approved for the current year the payment of one hundred dollars on the instalment plan for a life membership in the A. V. A. The following form has been mailed to every member of the association. Either the card which you received or the coupon below may be used in sending your acceptance of this plan to Z. M. Smith, Room 225, State House Indianapolis, Indiana.

I....., of.....
(P. O. AND STATE)

promise to pay the sum of one hundred dollars for a life membership in the American Vocational Association, Inc., payments to be made in instalments as follows:

Twenty dollars on or before April 20, 1930
Ten dollars on or before May 10, 1930
Ten dollars on or before June 10, 1930
Ten dollars on or before July 10, 1930
Ten dollars on or before Aug. 10, 1930
Ten dollars on or before Sept. 10, 1930
Ten dollars on or before Oct. 10, 1930
Ten dollars on or before Nov. 10, 1930
Ten dollars on or before Dec. 10, 1930

with interest at the rate of six per cent per annum on any unpaid balance from December 10, 1930 until paid.

"Most of us who are engaged in work in the field of vocational education will never have large sums of money with which to endow educational institutions. Few of us, when our bequests are announced, will have established trust funds to perpetuate agencies that we think are especially worth while. These philanthropies must, for the most part, be left to those engaged in more remunerative occupations.

Yet to a greater extent than most multi-millionaires, we have convictions on the subject of education. Out of our experiences on the educational frontier, we have developed a philosophy and initiated a program. It has been an alluring adventure. A great privilege! And what snug satisfaction comes from a knowledge of the progress made. The work must go on. It will. But regardless of how extensive and complete a program of vocational education may be developed in years to come, there will never be another group engaged in this phase of education so intensely interested in perpetuating its ideals, aims, and objectives, as those now identified with the American Vocational Association.

There are many members of the A. V. A. who want to make this permanent program of activity possible. Through concerted effort it will not be difficult. Collectively, we can endow our association."—PAUL W. CHAPMAN, *President, A. V. A.*

Mr. Chapman was the first to become a life member under this plan.

New Life Members—John A. Linke

men of the "old Northwest" because of their recognition of Mr. Linke's loyalty and untiring devotion to the cause of vocational agriculture. He has been a kindly, sympathetic leader, optimistic and unselfish, liberal and tactful, a man with whom men could deal. The North Central Region esteems it a rare privilege to do homage to him.

Mr. Linke was born on a farm in Bartholomew County, Indiana, on March 6, 1871. It was his good furtune to have a father and mother who were interested in seeing their children receive an education. As a consequence Mr. Linke has been in school all his life. He graduated from the graded schools of the county and then for six years was a teacher there. In 1897 he graduated from Hope Normal School at Hope, Indiana. He enrolled in Indiana University that fall and during the next seven years "taught and was taught" to the extent that he was granted a Master's degree in Education in June, 1904. From the fall of 1903 until June, 1913, Mr. Linke served successfully as superintendent of schools at North Salem, Brownstown, and Seymour, Indiana. In September, 1913, he enrolled in the School of Agriculture at Purdue University and graduated two years later. He was immediately taken into the Extension Department of Purdue University as an assistant to Dr. Z. M. Smith and remained with him until taking up his present duties in October, 1917.

John A. Linke has the love and respect of those who work with him. We doff our hats to him and wish him well.

* * * *

PHYSIOLOGY AND HEALTH—By C. E. Turner, M. A., Ph. D., Professor of Biology and Public Health, Massachusetts Institute of Technology. Published by D. C. Heath & Company, 1929.

This book is written especially for students in the late junior high school and early senior high school. It is sufficiently scientific to meet the needs of pupils in these grades and to give them a thorough knowledge of fundamental physiological facts. The book is profusely illustrated with clear-cut drawings, which should aid the pupil greatly in understanding the printed page. The list of questions at the beginning of each chapter tend to create a readiness and furnish a drive for the pupil to proceed in the study of that unit of subject matter. The discussion questions and experiments at the close of each chapter serve as a guide to the teacher to further enrich the course. In plan and execution I regard it as a model text book on this subject.—*Emma Baie.*

New Life Members—Wesley A. O'Leary

later he was appointed by the late Dr. Kendall as Assistant Commissioner of Education and assigned to the supervision of the vocational schools, manual training, continuation schools and the training of vocational teachers.

At the outbreak of the World War Mr. O'Leary was called into service by the War Department. He was detailed to the Rock Island Arsenal where he established a school for the training of officers for the division of equipment and supplies in the Ordnance Department.

For many years Mr. O'Leary has given close study to the needs and possibilities of education for industry. Some fifteen years ago he made a special study for the National Society for Vocational Education of the educational needs of adult workers in industry. The following year he directed an educational survey for the New York Factory Commission of a number of the industries of New York City. He also made a study of apprenticeship and industrial training for the United States Department of Labor and was retained by this department to organize an exhibit for the San Francisco Exposition.

In addition to these studies, Mr. O'Leary collaborated with Dr. C. A. Prosser in a survey of the Mechanic Arts High School of Boston and in the preparation of pamphlets on the training of vocational teachers, legislation for vocational education and short unit courses for industrial workers.

LIFE MEMBERSHIPS

An institution is no stronger than the foundation upon which it rests. An institution to be secure must have the ability to project itself into the future. It must then be in a position to realize these ambitions and aspirations when the time comes for their logical and orderly appearance.

For this reason banks have capital stock and surplus credit, educational institutions build up endowments and life insurance companies establish large reserves. These credit resources serve as a safeguard against the uncertainties of income from current business and financial sources.

The American Vocational Association needs to follow the practices of sound business procedure and provide for the permanent establishment of its plans and ideals. A substantial endowment fund will secure this stability and certainty as nothing else will. In this and other issues of the News Bulletin opportunities for securing Life Memberships in the A. V. A. have been extended, the money from such sources to go into a permanent endowment fund.

New Life Members—R. W. Gregory

he enrolled in Purdue University in September 1913 and graduated from there with a degree in Agriculture, having specialized in Agricultural Education. His first job after leaving college was with Uncle Sam at thirty dollars per month. In 1919, he began teaching vocational agriculture in the Mooresville, Indiana, High School and remained there until October 1923 when he resigned to do graduate work in the Department of Rural Education at Cornell University. He received his Masters Degree in September 1924 and joined the staff in Agricultural Education at Purdue as an Itinerant Teacher-Trainer in Vocational Agriculture. For the last three years he has been Chairman of the Publications Committee and Editor of the News Bulletin for the American Vocational Association.

—Z. M. Smith.

Homemaking Education As A Man Sees It

EDWIN A. LEE
Director of Division of Vocational Education, University of California

Most women must be trained for at least two vocations. One of these vocations, homemaking, is permanent. The other is temporary in the great majority of cases.

There are upwards of 25,000,000 homes in the United States. There is accordingly a demand for approximately 25,000,000 homemakers.

Homemaking was formerly learned by girls in homes. Girls under modern conditions are mainly boarders and lodgers. The present generation of mothers is not capable of training daughters, due to rapid changes in science and art of home-making.

The modern home, nevertheless, is the most important institution of society. As majority of homes of a community do a and think so does the community do and think.

Home is a cooperative partnership in which all members have privileges and responsibilities. Wife is the director-general of the home. Men should be trained for their share of the responsibility of homemaking.

Homemaking education rightly taught will reduce divorce, conserve childhood, cause a higher type of citizenship to evolve, build up a finer type of community.

No young woman should be considered educated who has not faced the real issues of marriage and homemaking.

No girl should be allowed to graduate from a high school who has not considered, under a wise and sympathetic teacher, the basic problems which she will almost certainly face as a wife, mother, and homemaker.

NEWS NOTES

MICHIGAN

Mr. E. E. Gallup, State Supervisor of Agricultural Education in Michigan is ready to testify that there is a Santa Claus. The reason for the re-birth of faith in this age old belief arises from the fact that on Christmas Day the vocational agriculture teachers of Michigan presented Mr. Gallup with a *Life Membership* in the National Education Association. Mr. Gallup has served vocational education loyally and faithfully and is deserving of every honor his friends find it possible to bestow upon him. We offer "Congratulations, 'Old Man'."

CALIFORNIA

The Bay Section of the California Vocational Association held its annual meeting on March 1 in Vallejo, Cal. The principal address was delivered by Captain C. W. Fisher, United States Navy Yard, Mare Island, Cal. Other points of interest in this meeting may be briefly summarized as follows:

1. This was an all day session, with a banquet and social dancing in the evening.
2. Department meetings were held in the morning.
3. The ladies and men met in separate groups for the noon luncheon.
4. The early part of the afternoon was spent in a trip thru the Mare Island Navy Yards. Extremely interesting to the Vocational and Industrial instructors.
5. The latter part of the afternoon was spent in round-table discussion.
6. The California Vocational Association extends to any member of the American Vocational Association or any State Vocational Association, who is touring or visiting the Pacific Coast this summer, a cordial invitation to attend all the meetings of the Fifth Annual Conference, to be held August 1 and 2, on the Campus of the San Jose Teacher's College, in San Jose, Cal.

Remarks by Captain C. W. Fisher, Manager, United States Navy Yard, Mare Island, Cal., before the meeting of the California Vocational Association at the Casa de Vallejo Hotel, Vallejo, Cal., March 1, 1930:

I am to tell you of the qualities that the management desires to find in its employees, to the possible end that you may be able to assist in their development in the youth you are teaching. It is an old subject. About 180 years B. C., an eloquent Hebrew discussed it; Sixty years ago, Thomas Carlyle wrote about it; four hundred and fifty years ago, Chaucer, in the earliest of English poetry, sang of it. In modern days volumes have been written, whole college courses established, and innumerable correspondence school courses deal with it.

We must have good material to work with. The fundamental good qualities must be present in such degree that they are capable of development. The opposite bad qualities must also be absent, for neither vocational training nor employment at a trade will of themselves eradicate dishonesty, malice, untruthfulness, cruelty, sloth. We must have fallow ground in which to work. It should contain the elements of interest, loyalty, obedience, honesty, self reliance, perseverance, industry, zeal.

With good teaching, and employment under the proper surroundings, among skilled artisans of good character, the youth or the new employee can be vastly improved.

Good judgment develops from native intelligence and from observing experienced men.

Skill is developed from awkwardness by practice and perseverance.

Self reliance is developed from the combination of skill and experience.

Resourcefulness comes from thorough knowledge of the craft plus the ability to absorb all manner of information and store it away for future use. It is usually built largely on native ingenuity.

Loyalty can be largely developed from intelligent trust.

All such qualities are valuable to any man. They are present to a considerable degree in most artisans. Of even greater value, however, are the qualities of initiative and leadership, which are like two brothers, and the possession of them marks their owner definitely for advancement and success. These two qualities are rare, and for that reason, as well as the fact that they have intrinsic value of their own, are the most valuable in any employee.

Young men being educated for a trade should not be deceived. The *sine qua non* is hard work, and I mean just that—hard work. Any teacher that permits a boy to select a trade because the boy thinks it is easier than some others is false to his trust. Some trades require more physical strength than others, and it would be foolish to advise a weakling to learn blacksmithing or boilermaking, of course, but the lighter trades such as patternmaking or electrotyping require even more application and study. The sum total of the demands on mind and muscle is about the same in any case. Where more mental effort is needed, there is usually less physical exertion required and vice versa,—and the total of both kinds of effort is invariably all the man has,—provided, of course, he is desirous of being a good mechanic.

Also the working conditions should not be minimized. There should be accurate knowledge of the heat, confinement, noise, dirt, confusion and discomfort to be expected.

The rates of pay are usually well enough known to require no comment.

And that brings me to the kind of a man any employer likes to see come to work. I have spoken of the traits of character, and have pointed out that many a dreary lecture or sermon has been delivered dealing with them. But there are certain very practical points that are usually left out. Remember we are discussing a man injected as a stranger into a rather hard-boiled organization, in the most highly competitive business in the world—that of earning a living. The man *must* make good.

Such a man, the prospective employee:

Should keep his mouth shut and his ears open.

Should read all rules and notices thoroughly himself.

Should render instant unquestioning obedience to authority.

Should be jealous of his rights, but manifest this jealousy with utmost care.

Not be a busybody, but pick up all he can about what is going on.

Not permit himself to be disturbed by the envy or horse-play of his mates.

Always be cheerful, and be able to take hard punishment, both verbal and financial for errors or violations of rules without losing his temper or becoming a grouch.

Do a little more than demanded and do it better.

Be very chary about mixing up with restricted output—it cuts both ways.

Be prompt and punctual, and regular in attendance.

Learn that alcohol and work do not mix any better than alcohol and gasoline. Many seem to get away with it. But more fall,—and how!

Be neat—put things away. Be clean.

Be friendly but not obtrusive.

Be self-reliant, but always ready to receive suggestions.

Realize that the organization *must* be maintained.

The average shop full of men is not unlike a room full of boys, swayed by evil mob spirit or by generous and noble impulses, in a bewildering combination that is as difficult to understand as it is fascinating to work with. A few leaders usually control it, and not always the rated men either. It is of vital importance that this leadership be good, not evil. Crowds and shops are easily swayed, and usually more easily swayed in the wrong direction than in the right. It is therefore doubly necessary that men be capable of right reasoning.

We want men who are good citizens in the highest sense of the word. Home makers, city builders, intelligent voters, men who are thrifty instead of extravagant, who pay their bills, who appreciate and illustrate the dignity of labor. The insidious propaganda of those who would overthrow our cherished institutions must be shown forth in its naked falsity. Wickedness and graft are properly attacked; but the undermining of our body politic, built on the world's finest conception of the rights of man, is an attack that must be repulsed if we value our individuality, our homes, our communities. We want no Reds, we want true blue Americans.

DELAWARE

Seaford Vocational Agriculture Department Clears $21,394.01 in 10 Years

Mr. R. W. Heim, State Director of Vocational Agriculture, reports that the Seaford Agriculture department, of which W. Lyle Mowlds is in charge, gives this state the first definite figures of what has been accomplished after 10 years of agricultural instruction, under the Smith-Hughes act, in Delaware.

Records have been of untold value in the bringing out of some very enlightening facts concerning vocational agriculture in the past 10 years at the seaford High School. These records are kept up to date each year by the instructor and the members of the most active in the state, for all boys who have enrolled in Vocational Agriculture and are the means of obtaining the following data:

There have been enrolled in the Seaford department of Vocational Agriculture during the past 10 years 143 boys—94 of whom have been farm reared. Of this group 77% are still engaged in agricultural lines while of the 49 town boys only 8% are at present engaged in agricultural work.

The profits from the projects raised by these boys total $21,394.01 of which $20,160.11 has been made by the farm-reared boys. This gives an average profit of $252.00 for each farm boy and $42.50 for each town boy.

Of those finishing agriculture 16 have gone on to college.

These results, as obtained by Mr. Mowlds, are most gratifying to those interested in agriculture for as long as we are able to keep over 75% of our farm youth remaining on the farm, and taking up the scientific as well as the practical side of agriculture while in school, the outlook for the future farmers is far from a gloomy one.

This 10 year summary also shows that, as a general rule, it is unadvisable for town boys to take agriculture when only 8% remain in agricultural lines over a period of 10 years. It seems advisable for our school systems to try and fit the pupils to those subjects which we find them best adapted.

ILLINOIS

The Illinois Vocational Association has just issued a hundred and sixty page bulletin of the proceedings of the Convention held November 1 and 2, 1929.

At a meeting of the Board of Directors held in Chicago, March 22, 1930, it was decided to hold the next convention of the Illinois Vocational Association in Chicago, Friday and Saturday, November 7 and 8, 1930.

The new state supervisor of industrial education for Illinois, is Mr. J. W. Thompson. At the time of his appointment, Mr. Thompson was an instructor of carpentry estimating in the Washburn Continuation School, Chicago. He graduated from high school in Fairfield, Illinois, attended Hayward College and the Northern Illinois Teachers College in DeKalb, and later completed a course at Lewis Institute. His teaching experience includes work in the rural schools of Illinois as teacher and principal. He taught manual training in the Chicago Schools for several years, and his work recently has been in connection with carpenter apprentices. In addition to his experience as teacher, Mr. Thompson has worked as a carpenter and contractor, and has served as Secretary of Carpenters Local Union, Number 643.

The Chicago Industrial Arts Round Table, an organization of teachers of vocational and practical arts subjects in the schools of Chicago and vicinity, has held many interesting meetings the past winter. The first was divided into departmental discussion groups, and was held at the Y. M. C. A. The second was a luncheon meeting at the convention of the Illinois Vocational Association, and Dr. W. T. Bawden was the speaker. At the third meeting which was held at the Y. M. C. A., reports of the American Vocational Association convention in New Orleans were given by several members. The fourth meeting, at the Francis Parker School, consisted of group meetings at which each group exhibited projects and explained their development and use. The fifth meeting was a visit to the Bell Telephone Company, and a study of their training school methods. The sixth meeting was held at the printing plant of R. R. Donnelley & Sons. Mr. A. DeSauty gave a talk on book binding, and the members had an opportunity to visit the largest private printing plant in the world. Attendance at the Round Table meetings averages over eighty, and the members receive much benefit and stimulation. Other Round Table groups in Illinois are the Peoria Round Table and the Fox River Valley Round Table.

NEW JERSEY

A few days ago I saw a linoleum block poster made by one of the pupils from the Ocean City State Summer School. It was a striking thing, well done and a "sure sign to catch attention".

NORTH DAKOTA

Lucile Horton is the new teacher trainer at the State College, Fargo, succeeding Frances Bailey, resigned. Miss Horton was recently in teacher training work in Tennessee.

Ella Johnson, a graduate of University of Minnesota and with experience in adult teaching, was added to the vocational staff in October. She is filling a six month's position as itinerant adult teacher in homemaking.

Adult Classes in Homemaking

A new venture in home economics education for North Dakota took life October 15 in Fargo, when adult classes for homemakers and business women opened for an eight weeks' unit under the itinerant teacher, Miss Ella Johnson. Fourteen classes were given with an enrollment of 392 women, and a total attendance of 1,446. A total of 80 classes were held. Similar eight week units are being conducted in three other centers—Minot, Velva and Grand Forks, and present indications would warrant the belief that 1000 women will be reached through these evening classes. This has all been made possible through the additional George-Reed funds and marks a definite forward step in vocational home economics in North Dakota.

It is probable that at least two vocational day schools will employ their home economics teacher for longer than nine months this year, thus strengthening the home project work in those communities.

NEBRASKA

The Nebraska State Board for Vocational Education announces the ap-

pointment of Sidney Owen of Phoenix, Arizona, as State Supervisor of Trade and Industrial Education, to succeed Harvey L. Freeland who resigned to accept a position in the Hawaiian Islands.

Mr. Owen was selected from a large number of applicants. He is City Director of Vocational Education in Phoenix, where his work attracted much favorable comment.

He is a product of the University of Arizona and the Colorado State College. He is a machinist by trade.

Mr. Owen and family will arrive in Lincoln early in March.

SIDNEY OWEN

NEW YORK

A meeting of the Capital District Vocational Guidance Association was held in the Oneida School, Schenectady, Wednesday evening, March 19th. Mr. Harry Linton, Assistant Principal of the Milne Junior High School, Albany, presided at the meeting.

After Mr. Austin Coulson had reviewed the activities of the annual meeting of the Vocational Guidance Association at Atlantic City, Mr. George Hutcherson, State Supervisor of Guidance, introduced the speaker of the evening Mr. Robert Hoppock, Field Secretary of the National Vocational Guidance Association. Mr. Hoppock spoke on "What Vocational Guidance Means, What It Is Doing, and What It Hopes to Accomplish".

He pointed out that vocational guidance will not tell an individual what occupation he should follow nor will it put everyone into the right occupation but it will give to the boy or girl about to go to work, reliable and informative data on occupations so that he or she will be guided in making better choices.

Mr. Hoppock also stressed the fact that if it is worth-while spending hundreds of millions of dollars on school buildings, teachers salaries, books and equipment, it is certainly worth-while to place guidance teachers and counselors in the schools to see that this expense of educating youth results in guiding them in the right avenue of employment.

Mr. Hoppock believed that the field of guidance holds great possibility; that it offers many problems to be solved but that it is a movement that will result in making millions of people happier in their jobs and capable of a larger earning power.

Guidance Teachers Elect Officers at National Meeting

At the annual convention of the National Vocational Guidance Association held at Atlantic City February 20, 21 and 22, the following officers were appointed: Miss Emily Pritchard Cooley, Director of Vocational Guidance, New Orleans, President; C. C. Robinson, National Council Y. M. C. A., first vice president; George E. Hutcherson, Supervisor of Guidance, New York State Department of Education; 2nd vice president.

Directors and Supervisors of Vocational Schools In New York State Hold Annual Conference

An annual conference of directors and supervisors of vocational schools in New York State was held at Syracuse, New York on January 23rd and 24th for the purpose of discussing part-time schools, half-time corporation schools, apprentice training and industrial high schools. Mr. Oakley Furney, Chief of the Industrial Education Bureau, State Education presided. The meeting was addressed by Dr. L. A. Wilson, Assistant Commissioner for Vocational Education, State Education Department. Mr. E. D. Fink, State Supervisor of industrial Teacher Training, State Education Department spoke on regulations which are being considered for in-service training of teachers; Mr. G. E. Hutcherson, State Supervisor of Guidance discussed a state guidance program; Mr. Roy G. Fales, State Supervisor of Industrial Arts gave a short description of courses of study in industrial arts which he has in preparation.

In connection with part-time schools the problem of placement and training for unemployed boys and girls was discussed. It was found that in spite of a depression in the business world, a relatively small number of children were out of work. In the cities where the State Labor Department has juvenile placement agents, it was decided that teachers would co-operate with them to secure employment for out of work children. In other places each school would develop a placement program for itself.

In half-time co-operative work the programs developed in York, Pennsylvania and Cincinnati, Ohio were discussed, the group being of the opinion that co-operative work could be developed in many New York state communities where it would be impossible to establish trade schools on account of the cost of building and equipment. A number of directors from the larger cities of the State thought that two years of full-time trade work followed by a four year co-operative high school program would be very advantageous because many boys and girls graduate from a two-year trade course at 16 years of age and desire additional schooling.

The co-operative program is nearly always a related subject program, consisting of instruction in science, mathematics, drawing, design and related academic subjects. This makes it possible for a boy receiving instruction on the co-operative plan to perfect himself in trade or technical occupations on the job and receive good general and technical training in school.

Apprentice training was reported by local directors to have aroused widespread interest in the state, especially in the building and metal trades. While apparently the number of journeymen workers in all industrial occupations is decreasing, the number of and demand for skilled journeymen is not. This explains the reasons why representatives of industries are so anxious to have the schools help in the development of apprentice training. The concensus of opinion among the directors was that school instruction for apprentices should be given in day time and as a part of the regular working week. When this was found to be impossible the instruction should be given at night. In addition to the building and metal trades there has arisen a demand for apprentice training in automobile repair work.

The question of whether or not four-year industrial high school courses should be established in New York State was discussed at length. At present nearly all industrial high schools offer two-year trade courses. However, since these courses are open to boys who are eighth grade graduates, many are too young to enter trades when they graduate from trade school. This has resulted in a demand from the students and then parents for a longer trade course. It was felt that while certain craft trades like printing included a sufficiently large body of content so that four full years of day trade work might be given, on the whole trade courses should be two years or less in length. A number of the men present at the meeting were in favor of restricting admission to two year industrial high school courses to pupils who were ninth and tenth grade graduates.

Continued on Page 45

PRINTING EDUCATION

A Recent Survey of Printing Education

By CHARLES W. SYLVESTER
Director, Division of Vocational Education, Baltimore, Maryland

Baltimore has made rapid strides in Vocational Education, particularly as it pertains to the Printing Industry, during the past six years. The Baltimore Association of Commerce and The Engineers' Club became intensely interested in the promotion of this type of education in our city more than two years ago. As a result of their interest, our program of Vocational Education has been enlarged, improved and greatly extended to meet the industrial and commercial needs of the city. In order to get a broad picture of large city Vocational Education programs with supporting information, and in order to test the soundness and validity of our present and projected program, a committee of three persons was selected to make a study of work in six cities. Those cities selected were Pittsburgh, Cincinnati, Milwaukee, Detroit, Cleveland and Buffalo. As some data had been secured a few months before in Denver and Los Angeles, it was decided to include these two cities.

That part of the survey which is of particular interest to this group, and which I have been asked to discuss, deals with Printing Education. The cities referred to have been very cooperative in making it possible for us to secure information which we desired. We were able to get a splendid picture of the educational work in printing in each city through observation of classes at work and from conferences with teachers, principals and directors. In many instances we had an opportunity to talk with representatives of industry. Almost without exception, each city is thoroughly sold on the importance of Printing Education as a general education subject as well as a means of preparing students for trade employment.

Printing for General Education Purposes

Printing is one of the most important industrial arts subjects everywhere. In Buffalo and Cincinnati education work in printing is carried on in some elementary schools. This is also true with respect to one of our schools in Baltimore. It seems to be a very popular and prominent subject in junior high schools and every city having junior high schools has included this subject in the curriculum. In Los Angeles there are 22 junior high school shops, Cleveland has 26 and in Denver and in our own city there are 9 each. In each city included in this survey there is Printing Education in the senior high schools. In Los Angeles there are 29 high schools giving educational work in this field. There are six such schools in Cleveland, five in Denver, four in Cincinnati and a smaller number in the other cities, with splendidly equipped shops and definitely organized programs of Printing Education.

Buffalo has one high school with an enrollment of 520. In Cincinnati there are 2400 students enrolled in senior high school printing courses. There are 2700 in Los Angeles and in Cleveland 3434, with other cities well represented. This certainly indicates to me that Printing Education is not only worthwhile, but is exceedingly popular with the students, inasmuch as it is usually an elective subject. No city referred to employs less than four teachers for printing instruction outside the vocational schools, and in Los Angeles there are 62 teachers devoting their full time to this work. It is interesting to note that the average number of students per teacher varies from 44 to 227. This variation, of course, is largely due to the fact that more time for each pupil is being allotted to printing in some cities than in others. The general average for all cities is 95 pupils per teacher, which is considered quite enough for any one instructor to handle.

Printing in Trade Schools

With the exception of Cleveland, every city has at least one trade school in which printing is offered on a vocational basis. Milwaukee has two such schools, and in a few places, particularly Los Angeles, printing is offered as a trade subject in some of the high schools. This discussion, however, will not include the subject work that is carried on in high schools, although in most instances, it is of equal importance and maintains the same standards of instruction and workmanship. In Cleveland we find that the Cleveland Typographical Union No. 53 owns and operates a trade school for their apprentices. The Cleveland Pressmen's Union also operates a trade school and gives instruction in various kinds of press work. As printing is one of the most important trades in each city, it is quite natural that we found splendid programs of Vocational Printing Education. All cities seem to be alive to the situation and are doing everything they possibly can in various ways to meet the need for trained craftsmen in this field.

Administrative Organization

In every city, some person directly responsible to the Superintendent of Schools has charge of the administration and supervision of all vocational schools and courses. In some cities, the title of this position is "Director of Vocational Education", while another is "Associate Superintendent of Schools" and still another "Deputy Superintendent of Schools". Nearly every city has a plan all its own. In Milwaukee we found the day school courses in the Boys Technical High School are the full-time unit trade type. The Milwaukee Vocational School is well known for its continuation part-time type. In Los Angeles, Pittsburgh and Buffalo, the all-day unit trade school predominates. Cincinnati is organized on a part-time cooperative basis, while in Denver we find that well known Opportunity School, where students are allowed to come and go as time of each individual student permits. Our work in Baltimore is of the all-day unit trade school type with the part-time cooperative feature in the latter part of the course. All cities are carrying on a splendid evening school program for the apprentices and journeymen from industry. The one great difficulty which exists but which is also encouraging, is the fact that all employed workers who register for evening school work cannot be accommodated in the day school plant.

Cooperative Relations with Industry

Everywhere we find an attempt has been made to secure the cooperation and assistance of industry. In four cities we find definitely organized trade advisory committees composed of representatives of employers, employees and Education. These advisory committees are meeting regularly and have much to do with the success of the Printing Department. While there are no trade advisory committees in

some of the cities, almost without exception the work is unanimously approved by all groups, and assistance is being given by individual firms and labor organizations direct.

Cincinnati with its part-time cooperative work, has perhaps the closest tie-up with industry, inasmuch as all students are employed during the period of training, thus providing employment opportunities for all at the time they complete their course. No one, however, could desire better cooperation than we receive from the printers of Baltimore. They are an outstanding example of what can and should be done in each industry. In addition to providing employment for students, industry has given much assistance in the development of courses of instruction and in supplying equipment for the various schools. This feature, I believe, makes it possible for each school to operate on a most efficient basis. At least, this is our experience in Baltimore and as the years go on, cooperation seems to be even more valuable.

The advisory committees are ever ready to assist the schools with their many problems and, as a matter of fact, are a most valuable connecting link between industry and the school. Some of the functions of these committees include the following:

Determining the need for training, formulating rules and regulations, reviewing student applications, approving and enforcing contracts, evaluating training and developing wage schedules, maintaining contact with cooperating organizations, assisting in securing the right type of equipment and materials, locating prospective instructors, reviewing and approving courses of study, assisting in establishing trade courses, enforcing part-time school attendance and regulations, adjusting complaints, inspecting apprentice training, reporting to employers, certifying training results, and circulating apprentice publicity.

Building and Equipment

In the majority of the cities, the printing trade school is a department within the Vocational School. In Baltimore, a separate building has been provided for this work, as a definite administrative unit. Cincinnati has made plans for a new building especially designed for printing trade work. The floor space devoted to printing varies from 3780 square feet in Denver to 12,000 in Cincinnati. Figuring this in accordance with the per pupil-floor-space area, we find that from 33 to 100 feet is being used for each pupil. I believe that at least 75 square feet should be provided for each student in planning new buildings. Splendid equipment has been provided everywhere. In Denver we find equipment valued at $25,000, Cincinnati has a plant worth $85,000 and in Baltimore the equipment has meant an investment of approximately $100,000. With few exceptions, the equipment is modern in every respect. In many schools, manufacturers have been very cooperative in furnishing equipment on loan or at a great reduction in cost. In Cincinnati and in Baltimore, the majority of the equipment has been secured through the efforts of employing printers. The cost of equipment per pupil varies from $300 to nearly $1200 in the all day trade schools.

Instructors and Students

Qualifications of instructors in all cities are very much alike. Men of long trade experience and with considerable preparation in the art of teaching have been secured for the various positions. The number of instructors employed varies from 3 in the Milwaukee Technical High School to 10 in Cincinnati. The duties are not always the same. In some places we find that the instructors serve part-time as co-ordinators. In the all-day trade school, the average number of students per teacher varies from 10 to 25. In the part-time schools, the number varies from 25 to 50.

Students have been selected very largely from a standpoint of age and grade. In a few places prognosis tests have been devised for the selection of students. In Baltimore this method of selection has worked out very satisfactorily. It is my feeling that such a procedure is well worth while. The number of students enrolled in printing trade courses varies from 43 in Detroit to 353 in Milwaukee. The largest all-day trade enrollment is found in the Boys Technical High Trade School in Milwaukee, with 152.

Type of Instruction

A great variety of instruction is offered in each school. Courses include Hand Composition, Machine Composition both Monotype and Linotype, Job, Automatic and Cylinder Press Work, Imposition, Typographic Layout, Bindery Work and Casting. There are also instances where engraving and lithography are carried on in connection with the printing school. Buffalo has just opened a department of lithography and in Baltimore we will open a department about January 1. Monotype, keyboard and caster instruction is offered in at least 4 cities and Linotype operation and mechanism is offered in most of the schools. Considerable attention is given to Bindery Work in many of the schools visited. Emphasis is being placed very largely on the type of work most needed in the community. The employed craftsmen are fortunate in having provided for their benefit a great variety of trade courses in the evening schools.

Production

The kind of printing work produced is very much alike in each school. As far as we are able to determine, little, if any, work is done for agencies outside of the school system. In some instances nearly all of the printing for the school system is done in school print shops, the major part of it being done in the trade school shop. While we do not do all of the school printing in Baltimore, we do work valued from $10,000 to $15,000 each year. In this respect, printing instruction is superior to most other types of trade instruction. The printing schools have the most valuable types of jobs needed which conforms to Wright and Allen's evaluating factor "Effective training for work can best be given on a real job." As the matter of production is left in the hands of the administrative authorities of each school, the work is selected which fits in with the program of instruction. This is the feature which I cannot stress too strongly. It seems to me if the work is taken in as it ordinarily comes, without regard to the course of instruction, much harm can be done to the program of education. On the other hand, were it not possible to secure practical work, instruction given would be of very little value, and the students in most cases would show very little interest in their work.

Placement of Students

The true measure of success of any Vocational School or course is: first, the possibility of all students finding employment, and second, the ability of those students to carry on efficiently and successfully. We find in Baltimore that a school with an enrollment of 90 will provide about all the apprentices needed in our printing industry. We are surprised to find larger numbers of students in other places, thinking, perhaps, they might be turning out an over-supply, but the answer to that is the fact that all students of the schools visited are being placed in the industry. In some instances, students have been placed in related kinds of work, but this, I believe, is to the credit of the school in each case. In the paper business, the ink business and the supply business of all kinds, there is a need for young men who have a knowledge of printing, and therefore, it seems to me this is an opportunity not to be overlooked.

The graduates from schools in these cities vary from 8 to 85 each year. There are many others, and this is particularly true in Baltimore, who leave the schools without graduating, for entrance into the industry. Many of these have met with unusual success, and have continued their training through evening school courses. More than 100 students in our city have en-

Continued on Page 36

REHABILITATION

Administration of a Program of Rehabilitation

By T. E. BROWNE
Director of Vocational Education, North Carolina

Modern definitions of education have led us to accept any service that society can render the individual which enables him to increase his earning ability and his capacity for enjoying the social heritage, and which gives the power and the inclination to make his contribution as the obligation of public education. Based upon this conception of the function of education I am sure we all will concede that the program for Vocational Rehabilitation has a strong claim for a place in every state program for public education. The work involved is largely a training process, which has to do with a group of the state's wards, which is less capable of paying for its own training than any group. Much of the technique is identical with that used for giving vocational training to those citizens who are not physically handicapped, therefore, if Vocational training of the physically fit is a responsibility of the State Departments of Education even to a greater extent is it the duty of the state's educational forces to provide training facilities for those who are handicapped.

Vocational and educational guidance are rapidly gaining prestige in public education programs. The state cannot shirk the responsibility for aiding and advising its young citizens with respect to the intelligent selection of a vocation in which he can make the wisest and most valuable use of the training it has given this citizen, at tremendous expenses. A large part of the service the staff renders the cripple is in the nature of guidance. The supervisor must make an intelligent analysis of each case, determine his educational qualities, his occupational attitudes, his abilities, etc. in order that he may advise advantageously with reference to his training program. It is a situation requiring both educational and vocational guidance, and a responsibility which the state departments of education should assume.

After the handicapped person has been placed in either placement or institutional training it becomes an educational responsibility requiring professional techniques, tact and good judgment worthy of the best teachers in the land. The provisions of our National Constitution, under which much of the Federal money coming to the states for the promotion of worthwhile programs, are directed in the interest of public welfare. Can we conceive of anything being more conducive to the public welfare than finding the men and women of our nation, who because of some physical disability are deprived of the opportunity of carrying on in their chosen vocations, training these people into vocational efficiency and placing them in remunerative positions where they become assets, rather than liabilities upon society. It is a type of vocational education which fully meets every interpretation of public welfare.

The administration of the Workmen's Compensation laws of the various states, involves so many legal technicalities, adjustments of annoying cases, etc., which no doubt establish relationships with industrial organizations and institutions that are not conducive to the promotion of the best relations for industrial cripples. This would make it appear to be an advantage for some other state agency to be shouldered with the responsibility of training and placing the industrial cripples and can there be a more appropriate agency than that state agency to which is assigned the state's educational function? It is my observation that the boards administering compensation laws recognize that theirs is not an educational or training responsibility and are glad to turn this duty over to the State Department of Education, under an agreement. The administration of Vocational Rehabilitation by the State Department of Education is only utilizing the State's agencies for the performance of their proper functions. In our State the educational program is carried on by various divisions performing their specific duties, the work of the department could not be well rounded unless every department and division were meeting its responsibility and the Department of Vocational Rehabilitation is accepted on the same basis as are other departments.

Education is a cooperative enterprise among state agencies and institutions. There must be a certain degree of cooperation and mutual understanding. The State Board of Health does a tremendous amount of public education. Because of certain essential cooperation between the Public Health agencies and the Rehabilitation Department there is even a better understanding and a strengthening of the friendly bonds between these two powerful State Departments. The State Department of Public Welfare and the Department of Rehabilitation perform certain duties which bring them into rather intimate relationship. The affiliation of the Department with the public school system gave it a standing which enables it to work out certain cooperative agreements much to the advantage of both. The constant strengthening of these cooperative relations accentuates a fine mutual understanding and respect for the functions of each other, and thus prepares the field for carrying forward a most valuable program.

In putting over a state program of rehabilitation it is necessary to establish working agreements and cooperative relations with private agencies, such as commercial houses furnishing equipment, training supplies and artificial appliances; with civic clubs such as Rotary, Kiwanis, etc., which have aided greatly in the work; and with surgeons, hospitals and other private institutions that have rendered such excellent service. We all must concede that being a part of one of the state's most powerful agencies, the State Department of Public Instruction, frequently enables us to secure services, make contracts and establish contacts which are of tremendous advantage in putting over a state program. Our program would be seriously handicapped but for the contributions of these private organizations.

One of the weakest links in the chain of public education in all its aspects is the publicity. The public which pays the bills, the public which is being served, the public which must furnish the encouragement, deserves to be informed. It has a right to full information as to workings of each department, how the money is being expended, and in the case of rehabilitation, for whom this special service is provided, as to how they can secure

Continued on Page 31

AGRICULTURAL EDUCATION

A Tar Heel Camp

By Roy H. Thomas
Supervisor of Agricultural Education for North Carolina

Eighteen hundred farm boys, who are enrolled in the vocational agricultural classes of North Carolina attended the Young Tar Heel Farmer Camp last summer. The camp is owned and operated by the Young Tar Heel Farmers, the North Carolina organization of students of vocational agriculture. The camp has been in operation two summers.

This camp is located at White Lake in Bladen County, North Carolina. The lake itself is one of the most beautiful bodies of inland water in the state. The water in the lake is colorless and has a perfectly white sand bottom. There is probably no more desirable place for bathing and water recreation in the whole state and certainly no place where the danger is less, due to the perfectly clear water, smooth sand bottom, and a two percent even slope from edge to center of the lake.

The lake has no surface inlet and only a very small surface outlet. The lake is fed by thousands of springs which may be seen bubbling up through the white sand. The surplus water filters out through the sand on the western side into the Cape Fear River which is three miles away and 38 feet below the level of the lake.

The camp site is located on the highway which skirts the western edge of this lake and is composed of eight buildings on a three acre plot. Six of these buildings are student cottages equipped to take care of 30 boys each, one central dining and assembly hall, and one twelve room cottage where those directing the camp, teachers and their wives and other visitors live while at the camp. In addition to the buildings and campus there is a five acre athletic field composed of a standard baseball field, tennis, volley ball, basketball and horse shoe courts.

A district supervisor of agricultural education is in charge of the camp and directs the camp activities. He is assisted by a trained playground director, who has charge of all games and recreation; a dietitian, who has charge of the dining room, and three cooks and a janitor.

The camp schedule is made out for the summer so that the boys from six to eight schools are in camp each week. The boys arrive at camp on Monday and leave Saturday. A list of food necessary for each boy to bring is mailed out in advance and each boy brings the provisions listed. In addition to the vegetables and other food furnished by the boy each one pays a fee of four dollars, two dollars of which goes to pay off the loan secured for building and equipping the camp and two dollars goes toward paying the expenses of the camp, such as cooks, athletic director, extra provisions, etc.

This picture shows the group of farmers who attended the 12th lesson of the evening school class in dairying conducted by S. L. Adams at Goforth (Hays County), Texas. Mr. Adams, teacher of vocational agriculture, divides his time between Buda and Goforth, 8 miles away. The people of this community have depended almost entirely on cotton. In 1925 the crop failed and again in 1927 and 1929. In 1925 and 1927 the failure was due to unprecedented drouth, in 1929 to insects. The best farmers of the community have decided that they must diversify or quit. This group is interested in increasing the size and quality of their dairy herds, hence their interest in this course.

It is a busy week for the boys. Each day is full of fun, recreation, and training. The following is a definite schedule which goes into operation on Tuesday morning and continues through Saturday morning:

6:45	Rising whistle
6:45— 7:00	Boys get in bathing suits and out on athletic field
7:00	Roll call
7:00— 7:15	Setting up exercises
7:15— 7:30	Morning dip in lake
7:30— 7:45	Dress for breakfast
7:45— 8:20	Breakfast
8:20— 8:50	Camp clean-up
8:50— 9:00	Inspection of cottages
9:00—10:00	Work hour—camp improvement
10:00—11:00	Sports—horse shoe, boxing, tennis, boating, etc.
11:00—12:15	Instruction in swimming
12:15—12:30	Dress for dinner
12:30— 1:15	Dinner
1:15— 2:15	Rest hour
2:15— 4:15	Baseball
4:15— 4:30	Get in bathing suits
4:30— 6:15	Swimming
6:15— 6:45	Dress for supper
6:45— 7:30	Supper
7:30—10:45	Reading, indoor games, radio, victrola, etc.
10:45—11:00	Prepare to retire
11:00—	Lights out and quiet

Throughout the week each school is in competition with every other school. Tournaments are conducted each day in the various sports, with the final contest being played on Friday to determine the winning school for the week. The point system is used in scoring schools and the following activities are scored in determining the winner:

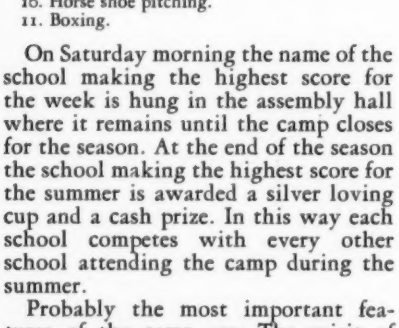
1. Attendance at roll call and setting up exercises.
2. Attendance at work hour.

Seventeen boys, members of the Vocational Agriculture class of J. C. Brown, Stephenville, entered 30 calves in the Baby Beef Show held at the Stephenville Fair ground, March 3rd. Two hundred dollars prize money, subscribed by Stephenville business men was awarded as follows: Otis Payne, first and second prizes, $50.00 and $35.00. Curtis Young, third, $25.00 The three winning calves have been entered in the Fat Stock Show at Fort Worth. Mr. H. L. Atkins, Editor of the PROGRESSIVE FARMER, Dallas, Texas, who served as judge, stated when making the awards that the boys were to be congratulated on the excellent showing made.

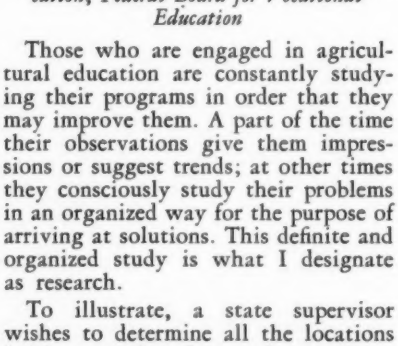
3. Order and cleanliness of cottage and surrounding ground.
4. Stunts on stunt night.
5. Swimming.
6. Baseball.
7. Tennis.
8. Volley ball.
9. Basket ball.
10. Horse shoe pitching.
11. Boxing.

On Saturday morning the name of the school making the highest score for the week is hung in the assembly hall where it remains until the camp closes for the season. At the end of the season the school making the highest score for the summer is awarded a silver loving cup and a cash prize. In this way each school competes with every other school attending the camp during the summer.

Probably the most important features of the camp are: The spirit of cooperation developed among the boys, an appreciation of good sportsmanship, contacts made with boys from various parts of the state. In addition to the above qualities being developed no boy leaves the camp unable to swim.



This picture shows about 150 boys taking lunch in the dining hall of the Young Tar Heel Farmer Camp at White Lake, North Carolina.



A group of students of vocational agriculture from the Startown High School in front of their cottage at the Young Tar Heel Farmer Camp.

A Proposed Program of Research

By Dr. F. W. Lathrop

Specialist in Research in Agricultural Education, Federal Board for Vocational Education

Those who are engaged in agricultural education are constantly studying their programs in order that they may improve them. A part of the time their observations give them impressions or suggest trends; at other times they consciously study their problems in an organized way for the purpose of arriving at solutions. This definite and organized study is what I designate as research.

To illustrate, a state supervisor wishes to determine all the locations in his state where he may hope to have agriculture departments eventually. By a study of the forces which have operated to develop his strong departments and also by a study of those forces which have killed off others, he arrives at standards which he may apply to all the situations in the state and thus determine potential locations. This supervisor has reached the solution of a problem by means of conscious organized study and he has made a contribution toward the solution of this same problem by other state supervisors.

Our public school systems and industrial organizations have seen fit to provide for such research as a part of their organization. I assume that we are not interested in research for its own sake; it has value for us only to the extent that it contributes toward the solution of our problems. To justify it, I believe no further statements are necessary.

I have been asked to propose a program of research in agricultural education. I can do this only in part. It is evident that the problems and difficulties of the various state programs constitute the research programs of those states. The title of my discussion should not suggest an attempt of someone outside your state to determine what your problems are and therefore what your program of research is. I will discuss rather the ways in which the programs of research in the states are related to the research activities of the Federal Board for Vocational Education.

First, may I sketch briefly what has been done in research in vocational agriculture up to the present time. I have listed the studies made in the various states which list I think is fairly complete. It seems possible to classify these studies under eleven headings. I will give you these headings with some examples under each heading.

1. Supervision and administration of state programs.
   (Problems such as teacher tenure, the placement of departments, and the technique of supervision come under this head.)
2. The training of teachers.
   (For example, studies of the teacher's job and a survey of training in service.)
3. The curriculum in vocational agriculture.
   (Studies of farming practices as related to the selection of subject matter and studies of procedures for making courses of study are examples.)
4. Supervised practice.
   (The determination of the difficulties in supervised practice and the relation of supervised practice to course content are included.)
5. Studies of prospective and actual vocational pupils.
   (For example, studies of rural areas to discover pupils, pupil personnel, the intelligence of vocational pupils.)

6. The results of vocational agriculture.
   (Studies of the occupations of graduates, the effect of vocational agriculture on agricultural college enrollment.)
7. Methods of teaching.
   (For example, a study of the survey method of teaching.)
8. Problems of special groups.
   (Studies of part time and evening schools in a state would be included here.)
9. Vocational guidance as related to vocational agriculture.
   (For example, a study of guidance in the rural high school.)
10. Surveys of vocational education in agriculture.
    (For example, surveys in Mississippi, New York, West Virginia, Florida, Virginia.)
11. The history of vocational agriculture.
    (For example, the history of vocational agriculture in Mississippi.)

This brief outline of the research completed suggests to me that there is still need for studies under most of these eleven headings. I am not able to point out all the studies needed but the few statements following will suggest some of the possibilities.

A. We have not studied adequately our potential and actual pupils. Some of the problems are: (1) Elimination of potential vocational pupils in the grades. (2) the factors which influence boys to enroll in vocational agriculture. (3) farm boys in high school but not enrolled in agriculture.

B. Many states have studied the occupations of graduates and these studies are very much worth while. Our present need is for studies of the earning power and social efficiency of vocational graduates who have been out of school long enough to become established in their communities.

C. Before we can measure the effects of teaching and supervision we must have measuring instruments. Our information tests have proved useful but our special need is for what we may call performance tests.

D. Further studies of the factors determining teacher tenure will help us to strengthen one of the weakest parts of our program.

E. The selection of trainees is one of the most vital of our teacher training problems. In the smaller institutions, especially, the selection is tied up with the problem of agricultural college enrollment. Increase of enrollment will usually give better possibilities for selection. The solution of the agricultural college enrollment problem will greatly benefit teacher training whether this solution is worked out by persons inside or outside of our group.

F. We have few studies in one of the most important parts of our program, i. e. supervised practice. We need to study our teacher training in its relation to supervised practice and the practices of successful teachers in respect to supervised practice.

G. The problem of vocational guidance for rural boys is almost untouched.

These are a few suggestions in a very fertile field.

As the states attack these and other problems, there are three relationships between the Federal Board and the states which have a bearing on a program of research. I will refer to these briefly.

The first may be called the clearing house relationship. The federal Board, according to plans now under way, will become a source of information on studies completed and in progress in several states. Each state may learn what other states have done and are doing toward the solution of any problem in vocational agriculture.

The Federal Board, in turn, needs the co-operation of the states in making known the studies in which they are engaged and the studies which they have completed. The logical next step is a bibliography of the studies in agricultural education. We are now engaged in assembling such a bibliography which will be continuously revised as each new study is completed.

The advisory relationship of the Federal Board is the second to which I wish to refer. Each state has competent research workers. One indication of their competency is that they are desirous of the suggestions and advice of other research workers. We sometimes think of a research worker as one who sets himself apart in order to work out his problem. On the other hand, it is probable that the soundest research is done by persons who are constantly exposed to the reactions and suggestions of other workers. The quality of our research is important. There is no surer way of increasing our prestige outside our own field than by producing a high quality of research. The research specialist of the Federal Board, because of his contacts with a large number of studies, should be able to assist other workers by means of suggestion and advice and so make a contribution to the cause. Improvement in research technique counts for most in improving the quality of a study. The research specialist is therefore particularly interested in this phase of research.

The third relationship between the Federal Board and the states arises from the responsibility resting on the agents and specialists of the Federal Board to engage in studies in their special fields.

I wish to mention one such study which is now in its initial stages. As you know, the length of period for vocational agriculture has always been a problem. No one really knows the best length of period for vocational agriculture or for any of the high school subjects.

The problem is most difficult of attack because of the number of factors involved. We are making an approach which seems the only practical one. We are to study the teaching of our most effective teachers of agriculture to see how they utilize the 90 minute period. The method is to make a detailed observation of what occurs during the teaching of a job or other unit. We are now developing by use in three Virginia departments a recording technique. When this technique is developed, we plan to observe the teaching of the most effective teachers in several states.

Most of the data for the studies made by agents and specialists will be secured by them in person; occasionally the states will be asked for data. A word of reassurance is appropriate here. No one has been left in any doubt about the attitude of supervisors and teacher trainers toward the questionnaire. When agents and specialists are not able to obtain the data in person, they may have to resort to other methods. The questionnaire will not be used if any other satisfactory method is possible.

The studies of the agents and specialists are selected because they concern the problems of special importance to the states. They will be national in scope. Those who are engaged in agricultural education can perform a special service by indicating the kinds of studies which will be of greatest value to them.

To summarize my discussion, I have indicated that research is an important function of a program of vocational agriculture. Each state must largely determine its own research program since such a program must be built on the problems of that state. I have sketched briefly under eleven headings what has been done in research up to the present time. Some suggestions as to further studies were added. I have pointed out three relationships between the Federal Board and the states which concern research, (1) the Federal Board as a source of information about studies made and in progress, (2) as a source of advice and suggestion to persons in states engaged in research and (3) the Federal Board through its agents and specialists carrying on studies which are national in scope.

In closing, may I say that I desire to make all the contacts I can with the research activities of the states represented here.

Curriculum Construction

By C. R. WISEMAN
South Dakota State College

Let us very briefly consider certain curriculum philosophy and apply it to Vocational Agriculture. Matters of curriculum in all phases are all important. Bobbitt says that the curriculum is primordial. Curriculum-making implies 3 major tasks. All are somewhat technical in character.

1st. Determination of ultimate and immediate objectives of Education or in our case, Farm Shop Work.
2nd. The discovery and selection of appropriate activities and materials of instruction.
3rd. Organization of these appropriate activities and materials into the most effective modes according to the group to be taught.

Learning and subject matter are taking on new meanings. Our final aim or objective is appropriate conduct—satisfactory behavior. This does not "just happen"—it eventuates. It eventuates from satisfactory activity of the learner along certain lines. Please note particularly that it involves *activity on the part of the learner*. The direction of the line is the goal or objective. The line of activity engaged in—the task set—in short, the "piece de resistance" is the curriculum. Thought of in this way our subject matter (the activities) takes on new meanings to the educator and teacher. Learnings are the residues or resultants of the ways of responding and reacting while at these activities. In this way learnings take on new meanings to the educator.

A short time ago I had an interesting discussion with a superintendent of schools. He held that the very significant thing in this whole business of curriculum and learning was, "What did the student do to the materials or tasks set?" Did he react to them? Did he react vigorously to them? I held that what I was interested in was how the materials reacted on the boy. How did they affect him? Did the instruction "take"? Somehow we must induce and bring about activity—self activity if you please—on the part of the learner. Having induced this activity we must then note if the effects of this activity are satisfactory and enough.

Now let us apply this in our Farm Shopwork. The boy in the shop undertakes to make a self-feeder. The live and competent instructor has in mind as goals or objectives, certain abilities on the part of the boy. The planning activity, the judging activity in securing materials and actual construction activities are the curricular materials. My superintendent friend would say that he is primarily concerned in what that boy does to the materials. Does he produce a well made feeder? I say that the instructor and we as educators ought to be deeply concerned as to how that job (doubtless self imposed) affects that boy. I am chiefly interested in how the feeder itself and the activities involved in making it have changed and developed that boy.

There is one significant feature of most of our farm shop and farm mechanics work that I would like to comment on. Say a boy or a group constructs a small poultry house. Really we have 2 end products. We ought to have (1) educational products in terms of increased ability in planning, in judgment and in the tool processes, and (2) we have a vocational product —the material poultry house. In such a situation often for the boy and the parent and sometimes even for the instructor the educational products get lost or are over-shadowed and masked by the material vocational product.

We must admit that the material poultry house has a utilitarian value. If well made it has a value as a demonstration to the home folks and to others in the community. But the instructor should always keep his mind clear on the point that in the last analysis we are after *educational* values and are after material values only to the extent to which they bring about educational values.

Project Accounting

By H. G. KENESTRICK
Assistant Professor of Agricultural Education, Ohio State University, Columbus

The pupil who thinks of his project as "keeping a record" of the enterprise has failed to understand the real opportunity for him in project work, and in all probability will not have even a well kept record. Essential as project records are, they are not a worth while end in themselves. Records that are not used, or are used wrongly, involve an enormous waste of pupil and teacher effort, and the requirement of keeping them may provoke a great deal of antagonism that is in itself detrimental to learning. Records can seldom be used effectively unless the particular kind of use is anticipated when the type of record is selected and the particular record kept. The question then, "What constitutes satisfactory project records and accounts?" can be answered best in terms of the use which is to be made of the records.

What are some important uses of project records? Formerly the most common use of project records was to measure pupils' earning and the extent of their participation in farming. This use has the merit of indicating, in a general way, the success of the pupil, but it frequently leaves much to be explained. Did the pupil have a large income because he produced efficiently and marketed wisely or because he benefitted by a chance combination of circumstances not likely to occur again? Did another pupil have little or no income because of an ill chosen undertaking, poorly managed, or because in spite of carefully laid plans well executed, he met the same reverses encountered by successful adult farmers? It is easily possible for a record kept chiefly to measure pupil earning and extent of participation in farming to result in misleading or wrong conclusions. Recognizing fully the merits of this use of project records, may we also recognize its inadequacy for the purpose of evaluating the quality of the pupils' work which have greater merit in the training of intelligent farmers?

Now, more emphasis is being placed, rightly, on the use of project records to measure the efficiency of pupils in the conduct of their project enterprises, and to explain the reasons for the degree of efficiency attained. Using records to measure the efficiency of pupils will frequently leave those responsible for the training with a less comfortable feeling of satisfaction, but if even it does it may mean more progress for the pupils.

Without enumerating other uses of project records, it can be demonstrated that a record which is satisfactory for measuring and explaining pupil efficiency in the conduct of project enterprises will ordinarily be satisfactory for other important and common uses, because of its comprehensiveness. The question of what constitutes satisfactory project records from the standpoint of use, then, will be discussed chiefly from the standpoint of this particular use—measuring and explaining pupil efficiency.

For this, as for any other legitimate use, accuracy of records is essential and the need for it is self-evident. We have only to think seriously of the ill effects which come from the use of inaccurate figures on project work to realize the almost irreparable damage that may be done. Some of the reports of accomplishments of vocational agriculture pupils that have appeared in print would cause a great deal of embarrassment to the teachers, teacher trainers, and supervisors who have published them, if a careful analysis of the figures were made.

Production costs far below the realm of possibility are only one example. Any report of pupil earnings or efficiency of production should stand up under the scrutiny of a critical examination by those who are either favorable or unfavorable toward the work. There should be no opportunity for the hard-headed farmer to say, "I could show a profit on my business too if I were to

figure the way he does." Worst of all is the effect on the pupil himself of being allowed to make erroneous calculations and draw conclusions on the outcome of project work, and have them accepted, in all seriousness, by the teacher. Consider the case of the boy who was adjudged first prize winner in a local project contest. He reported total credits of $738 on his corn project, with a labor income of $723! When inaccurate records are accepted, either the student gains the idea that the accounting is of no value or perhaps he comes to believe that a favorable showing, regardless of actual circumstances, is what is expected. To quote Mr. R. D. Maltby in an article written a few months ago, "It is pedagogically criminal to allow a boy to believe that he has made $40 or $50 per acre when he probably has made only $5 or $10 per acre."

But *how* accurate shall the records be? The desirable degree of accuracy is probably different in the case of those items representing actual operations and transactions than it is for those items which must be estimated. For example, in a corn project, there seems to be good reason for recording for each date when work was done, the kind of work and the actual number of hours, for seed the kind and amount, for fertilizer the amount and formula, and so forth. In arriving at the true figure for production, a weight or measurement based on a fair sampling is in keeping with practicability and reasonable accuracy, and accurate measurements of the field, not estimates, are needed for calculating the true yield per acre. For machinery and equipment charges, the use of time rates based on farm management studies are commonly preferable to an attempt to calculate exactly for the given machine and the given farm the exact cost.

Accuracy in the recording of items representing actual operations and transactions is most easily attained because the items are quite objective and do not involve serious effort in judgment. Accuracy in the calculation of items that must be estimated is more difficult to attain and here comes in the need for the use of standard practices in making estimates. Such items as a fair charge for use of land and machinery, or the depreciation to be counted against buildings should be estimated in accordance with the established practices of farm management authorities, with due opportunity for the exercise of judgment by the pupil in applying the rules to his own situation.

If we accept the statement that for any legitimate use, accuracy in project records is essential, we may still have widely differing opinions as to the desirable content of the records—that is, the degree of completeness. If records are to be used in measuring the efficiency of pupils in the conduct of their enterprises and to explain the reasons for the degree of efficiency obtained, we shall need completeness to the extent of showing the labor income, the cost of production, a detailed analysis of the efficiency factors used in farm management studies with adult farmers, and a record of the plans and of the significant occurrences which help to explain the outcome of the project. So much attention has been given to the matter of calculating labor income and cost of production that in this brief discussion we shall only emphasize the need for extreme care to avoid overlooking any items the omission of which would distort the picture. It is on the phases of analysis of efficiency factors and their relation to labor income and cost of production that we wish to make more detailed comments. For example, in analyzing the results of potato projects in the Ohio project study, yield per acre has seemed to be the most important factor in high labor income and low cost of production. This seems to be influenced most strongly by kind and amount of seed, amount and quality of organic practices used. To permit such an analysis, the records must not only be quite complete statistically, but the descriptive part needs to be rather detailed.

For example, again, in the swine enterprise it is well established that the number of pounds of pork produced per sow, the daily rate of gain of the pigs, the returns per dollar's worth of feed used, and the number of pounds of concentrates required per pound of gain secured are all items which have a strong significance in economy of production. These efficiency factors are closely related to number of pigs raised to weaning, sanitation practices followed, and use of pasture and high quality protein supplements.

Suppose that a pupil conducts a project beginning with a sow or gilt at breeding time and an analysis of the records is to be made when the first litter is marketed. It is entirely possible for the records to show clearly all items of expense and receipts so far as totals is concerned, making it possible to calculate the labor income and the pupil's returns correctly, and at the same time not furnish sufficient information that the items mentioned above can be calculated. If the boy simply records the number of animals marketed without recording the weight, it is not possible to calculate the daily rate of gain, or the number of pounds of concentrates per poind of gain produced. Unless a careful division of the records is made between the breeding to weaning and the weaning to marketing periods it is not possible to determine whether the feeding practices were economical in both periods or in only one or whether there was a marked difference between the two. We even have examples of boys who have weighed their litters each month during the summer growing period and have thus been able to check the rate of gain from month to month using the figures as an indication for the need of change in practices. Unless feed records are kept accurately by name and kind of feed it is impossible to calculate the percentage of animal protein or its equivalent and to have a check on this rather important item.

In a poultry flock management project the percentage of production attained by the flock each month is highly significant of the efficiency of the enterprise and in a daily record of egg production unusual fluctuations are signals to the careful pupil that something needs attention. Yet we frequently find records in which a daily record of egg production is not kept or in which there is no accurate record of the losses by mortality or otherwise from the flock. As a result it is not possible to tell the number of hens on hand at any given month and thus calculate the relative efficiency of the flock in production.

In a dairy herd management project a valuable opportunity for checking the project monthly is lost if the financial balance of each individual in the herd is not calculated each month. A characteristic of a good record then in many of these enterprises is not only the recording of the items from which calculations can readily be made at some distant future date, but the keeping of these calculations up-to-date from month to month so that the record can be used as a guide to changes in practices, not some time later, but *now*.

A record that is kept complete and accurate from the financial and statistical standpoint may give a very good picture of the reasons for the success of the project, but frequently certain information of a descriptive nature is needed to supplement this. Since this discussion is to be concerned primarily with statistical records we shall merely say in passing, that such a diary or narrative account is in most cases needed in the interpretation of the efficiency factors.

A characteristic that must be kept in mind at all times by those who devise records and for those who supervise their keeping is that the record be as simple as is consistent with the necessary degree of completeness and accuracy. Accuracy and completeness must not be sacrificed to simplicity, however. If we continue to stress the analysis of projects in terms of the common efficiency factors, something of simplicity will need to be

Continued on Page 39

HOME ECONOMICS EDUCATION

The Meetings at New Orleans

BEULAH I. COON
University of Chicago

There were two unique features of the home economics section meetings at the American Vocational Association in New Orleans in December. Miss Genevieve Fisher, then vice-president of the association, had planned a program so full of inspiration that the group who were present insisted that some provision be made by which the proceedings of the meetings could be published in full so that they could be purchased and used by home economics workers in the future. Miss Ivol Spafford, new Chairman of the Standing Committee, is now arranging for this and plans are being made for handling the publication through the Executive Secretary of the American Vocational Association. Another new feature was the report of the five committees which have been organized by the Standing Committee and which have been at work for three years on five different problems connected with the development of vocational home economics. Since the bulletin of proceedings will contain full reports of each of the talks given at the section meeting, this review will mention each only very briefly.

THE HOME PROJECT

Since two of the three plans for vocational home economics programs in the day schools as organized under the George Reed Law provide for a decidedly increased use of the home project, it was very fitting that the first half day's session be spent on a discussion of the home project.

Value of home projects.—Jessie Harris of the University of Tennessee wondered if without home projects we are often not educating girls away from their homes instead of for usefulness in the homes. She discussed how to get started in home project work, how to make written work worth while and avoid duplication, and how to grade or score and give credit for home projects.

Training teachers in the use of home projects.—Miss Maude Williamson believes that much more should be done by most teacher training institutions to prepare teachers to do satisfactory home project work. She outlined the program which is helping to overcome this difficulty at Colorado Agricultural College. Teacher trainers will want to see the details of her plan in the proceedings bulletin.

Supervising home projects.—Alice Stribling, of Alabama State College for Women, described how to overcome some of the difficulties in supervising home projects when the teacher has such large classes as to make home visiting of all projects impossible.

An attempt to measure the value of home experience for high school girls was described by Frances Henley of Mississippe State College for Women. She secured from pupils information about their home experience and then studied the relation between this and such factors as home economics grades, mental ability, personality, and average grades in subjects other than home economics. The high correlations she found between managerial and manipulative experiences and some of the other factors are worthy of study by those who have wondered how valuable it is for them to spend their time in encouraging home project work. These will be reported in the proceedings bulletin.

HOMEMAKING CLASSES FOR WOMEN

Training teachers.—Mrs. Mildred Weigley Wood, State Supervisor of Home Economics in Arizona, has been very successful in training teachers to teach classes of adults. She has found that two problems confront the one who would find the best teachers for these classes; she feels that superior ability in some aspects of homemaking with a minimum knowledge and appreciation of other aspects is more essential for the leader of women than for the day school teacher. Personality, too, she feels is a vital factor in the success of the teacher of adult classes. Mrs. Wood has not only trained her own evening school teachers satisfactorily but she has given special training courses in other states for these teachers. Her paper as published in the proceedings describes the details of her training program which includes some work in special methods, in observation of teaching and in supervised teaching.

Child Development Classes.—Miss Mabel McBain, City Supervisor of Home Economics in Houston, Texas, described the new plan which is being carried out in that city where a full time person teaches classes in child development to adults in various parts of the city. Units on the pre-school child, the Pre-adolescent Child, and Adolescence were provided during the fall for 321 women. Miss McBain described in detail the content of the units, the publicity program and the organization of the work and methods of teaching which have proved so successful. A unique feature of their provision for the time when more than the full time of one instructor is needed to carry on the work in the city has been the Leaders' Training Class which has been carried on this year.

State Wide Program. — Miss Kate North, State Supervisor of Home Economics in Oklahoma, pictured the remarkable cooperation which has been developed in her state between all the agencies interested in helping to solve family problems. She described the teacher training programs which are being held at each of the two state institutions for a week, and outlined the units which are demanded by the people of her state.

Home Improvement Program. — The means of adult education through work with the children was described by Miss Ivol Spafford, State Supervisor of Home Economics in Alabama. The agricultural teachers and supervisor and the home economics teachers and supervisors have cooperated with the parents and the pupils in carrying on some remarkably fine family projects. In some homes large intensive projects have been worked out by the cooperation of all concerned; in more homes many small home improvement projects have been worked out. The results of this cooperative program have been so effective that the state has increased the amount of money it has spent for vocational education to a point where it doubles the amount received from the federal government.

A Man's Viewpoint.—Dr. Edwin Lee of the University of California, inspired the whole group of home economics people present with his vision for homemaking education, giving four important reasons why home economics should be such an important part of our educational program and outlining the results which can be accomplished in our national life by a

well balanced homemaking program. Every word of the talk was full of thought which home economics leaders would find it of value to ponder over.

Newer Developments in Homemaking Program

Child Development.—Miss Anna E. Richardson, Field Worker in Child Development and Parental Education of the American Home Economics Association, talked from an outline of the objectives for this work which showed very clearly the needs of high school youth in their relationship to the functions of family life. Her list of goals which will appear in the proceedings will be found very valuable for checking objectives by course of study committees and teachers.

Family Relations.—Miss Marcia Turner of Iowa State College declared that homemaking has its basis in the field of human relationships and that if we fail to recognize and practice that truth in our teaching, then indeed we are not teaching real home-making. She set up objectives for this course and outlined a three year high school program involving this subject and showed how this fit in with and supplemented other units.

A Forward Look.—True to his reputation Mr. W. H. Lancelot of Iowa State College challenged every one of those present at the Saturday morning session to re-evaluate ideals and practices in home economics. He discussed the traditions and policies which he felt had hampered the development of the home economics program. His opinion of related subjects as a factor in the vocational program aroused a great deal of discussion as did his proposal for the division of courses in a four year senior high school program. Many city and state supervisors present felt this talk alone would be worth the price of a bulletin of proceedings.

Reports of the Committees

One of the members present at the meeting said it gave her a feeling of pride that she had never felt before to know she belonged to an organization carrying on such worth while studies as the subcommittees reported. When the Midwest and National Society consolidated and the new American Vocational Association was formed in 1925, it was decided that each of the fields or types of vocational education should have a standing committee whose responsibility it should be to "recommend and foster for its special field of studies, investigations and research projects and be responsible for initiating and developing activities concerned with all phases of work for the special field the committee represents."

The Standing Committee met with several people in Louisville to discuss what should be done and it was decided that there were three types of studies which the American Vocational Association should sponsor in home economics. Two dealt with home management because Vocational Education in Home Economics has done much to stress the importance of teaching management in high schools and colleges and there were questions which it was felt the vocational group should try to help answer; two dealt with an attempt to follow up the work of the committee appointed by the Federal Board to work out a plan for training leaders for home economics, and one took up the question of promoting research in home economics education because no committee was at that time at work on this problem.

Home Management Study.—Curriculum construction and revision command the attention of teachers and administrators at all times if they would keep abreast of the times. The home management course, perhaps the most vital of all our home economics courses both in the high school and in the college, requires constant study to insure its content containing those present problems which homemakers are meeting because of our changing social and economic problems of today.

What these problems are and how the homemakers rate them in importance can best be determined by going directly to homemakers for their opinions. This is the study which was recommended to the standing committee of the A. V. A. The committee has undertaken to study the home management problems from three standpoints: the home, the college, and the high school. College and high school committees are being asked to study the content of their courses of study in terms of objectives of homemaking education and of general education. In the mean time a list of homemaker's management problems is being collected from homemakers through personal interviews and questionnaires, from published studies of home management, from current literature and from the diaries of homemakers collected and compiled by Dr. W. W. Charters.

When the list is completed it will be submitted to the college and high school committees as a means of helping them to evaluate the content of home management courses and home management house practices and to recommend changes in the college and high school courses if it seems advisable. In the event that these committees do deem some changes advisable, they are asked to set up some specific problems and projects to be carried out in home management courses and to enlist the cooperation of home management directors in carrying them out.

The committees will be asked to formulate the results of their individual studies for publication. Details of the entire study have been developed under the guidance of Dr. W. W. Charters. The subcommittee of the college group are at work on their portion of the study.

Home management problems have been compiled from The Homemaker's Diaries and from questionnaires sent to selected homemakers from widely distributed parts of the United States. Additional problems are being collected through personal interviews of homemakers in typical homes of various social and economic levels.

The study thus far indicates homemakers regard their greatest management problems to be concerned with the family relationship factors, rather than with the organization and dispatch of materials of housekeeping. —Birdie Vorheis, *Chairman.*

The Child in the Home Management House.—Some people feel that one of the most effective methods of giving training in child development for the college girl is to have a child in the home management house. Some have feared the results on the child. To determine what some of the results are studies have been in progress in two institutions. Three studies have been undertaken at Cornell; these have involved three home management babies and six control babies from normal homes. The committee hopes for a summary when all three studies are completed. Another study made by Onica Prall at Iowa State College is summarized briefly below:

This study includes three children: Dick, Mary, and Ruth. Dick and Mary were each observed from the 5th to the 13th month, inclusive, while Ruth was studied from her 13th to her 19th month, inclusive.

Method:

Each child had a thorough physical examination given by one of the college physicians at the beginning of the study.

Data were collected through dairy records kept by the students in the houses and by Miss Prall. Mimeographed daily record sheets devised by the Child Development Department, were kept by each Child Director.

As an aid to the students, behavior traits that the student might anticipate were posted on the bulletin board in each house. The students were also advised to look for traits other than those suggested on the card. Data on the students' records were checked by Miss Prall for accuracy. In addition, Miss Prall made almost daily observations of the three children. Because of being resident advisor of the house in which Dick lived more time was actually spent on him than the other two. During these observations which varied in length of time and period of the day, she took notes on all activi-

ties of the children and classified them at the end of the day's observations. Developmental summary charts were compiled at the end of each month. This made possible a comparison of the child's development with the developmental summaries given by Gesell. Simple performance tests were given at intervals of two weeks and the results recorded on an individual chart for each child.

During the last month of the study a physical examination was given the children by the same physician who examined them when they first arrived. Height, weight graphs, and records of any special treatment were kept throughout the period of investigation. A mental test was also given them at the end by the Child Psychologist on the Child Development Staff.

Results:

Certain nutritional defects which were present at the beginning of the study were entirely corrected. The children had no illness whatever—not even colds during the period of the study. At the close of the investigation the examining physician pronounced them to be in almost perfect physical condition.

In motor development, they were all average or slightly above average according to the Gesell and Fenton norms.

In language development, Dick was slightly below average, Ruth average, while Mary was considerably above the norm. Likewise they advanced according to the expected rate in language, in adaptive behavior as well as in social development.

There seemed to be no evidence of social disturbances due to the rotating personnel of the home management group. Neither were there any disturbances at the time when the home management group changed.

The children were all happy and seemed to have the feeling of belonging to somebody.

Since the completion of Miss Prall's study, three new babies have been taken into the home management houses. The behavior of these children is being recorded systematically according to the technique worked out by Miss Prall. It is hoped that by pooling results of similar studies in other departments in Home Economics conclusions may be reached as to the desirability of the Home Management House situation for Child Development. It would take, however, observation on many children before the results obtain the reliability desired. —Genevieve Fisher, *Temporary Chairman.*

Finding and Guiding Leaders.—The work has consisted of a study of qualifications essential for leaders in vocational home economics. The study reported here was made by Miss Bernice Tucker, a graduate student at the University of Chicago last year:

An investigation was made of the qualifications, training, experience, traits and abilities of the six leadership positions of state supervisor, assistant state supervisor, local supervisor, head teacher trainer, assistant teacher trainer and itinerant teacher trainer.

The questionnaire method was used. The limitations of this method were recognized and all possible steps taken to make it reliable. The thinking of the reporter was made as objective as possible by requesting the reporter "to think in terms of real people," the "most competent and the least competent" he had had experience with. This list of traits and abilities was checked by asking him to give "activities," "strong points," "difficulties," and "causes of difficulties" of the leaders he had known. Three pre-tests were run to check the weaknesses of the forms. Adequate sampling was secured by:

1. Sending the questionnaires only to persons having direct experience with the positions.

2. Checking the position from three angles: that of the person holding the position, that of the person in relation to the position as employer, and that of the persons in relation to the position as co-worker or assistant.

3. Making the original list broad enough to assure adequate sampling if only one-fourth of the questionnaires were returned.

4. Making the geographic scope broad enough to assure a representation from all sections of the country.

Questionnaires were sent to the three federal agents, and to two others who had been federal agents; to all state directors, to state supervisors, assistant state supervisors, and teacher trainers whose names were available, to all deans of colleges of education or heads of home economics departments having teacher trainers in their schools; to sixty local supervisors, sixty city superintendents; and to three hundred twenty-one teachers. Seven hundred twenty-seven different persons were sent a total of one thousand questionnaires, many persons checking on their own position and on one or more others with which they had experience.

The returns from these were as follows: federal agents, eight; state directors, sixteen; state supervisors, fifty-four; assistant state supervisors, eight; head teacher trainers, forty-nine; assistant teacher trainers, eighteen; itinerant teacher trainers, eight; deans of colleges of education, nine; heads of home economics departments, twenty-two; local supervisors, thirty-four; city superintendents, four; teachers, sixty-two. A total of two hundred ninety-two forms were returned. In all cases with the exception of the returns of the forms from city superintendents and teachers, one-fourth or more than one-fourth were returned. Only one-fifteenth of the forms sent to the superintendents were returned and one-fifth of the forms sent to the teachers. A large return, sixty-two forms from the teachers, seems, however, an adequate sampling from their angle. All sections were represented in the returns with the exception of the southern which was not represented by the city superintendents.

In studying the information, training and experience were summarized in order to show the number of persons who considered each essential and the average amount of time as well as the amount of time most frequently suggested. In summarizing traits, the technique used by Dr. Charters was employed, translators worked independently, translating trait actions into traits. The definitions given in the "Teacher-Training Study" were used as a guide in translation. The first list was telescoped into a shorter list by combining similar traits into groups under a general heading. The result was a list of twenty-five traits which corresponds to the list given in the "Teacher-Training Study." Abilities were organized into related groups and a general heading decided upon for each group. This organization resulted in a list of fifteen abilities. Evaluation of traits and abilities was made by computing frequency of mention of each by different individuals, rather than by counting the number of times a trait or ability was mentioned by each person.

The findings of the study are summarized in the form of a check sheet which may be used by:

1. Teacher training institutions in setting up their curriculums for training for these leadership positions.

2. Teacher trainers, who train the prospective leaders, as a check on their teaching and on the provision made for developing certain traits, abilities, experiences and training.

3. Supervisors and itinerant teacher trainers, as an aid in analyzing the difficulties of teachers, and as a basis for diagnosing needs and suggesting experience, training, traits, and abilities that should be added.

4. Prospective leaders, as a guide for their training and experience.

5. Present leaders, as a means of checking their weaknesses.

6. Employers of prospective leaders as a means of evaluating the probable success of the prospective leader.

Training leaders.—A plan has been worked out which can be used by institutions giving graduate courses in home economics education. The plan involves a means of checking the qualifications which graduate students bring, of determining further exper-

iences and courses which the graduate work should include and of following up the results of the graduate training. Details of this study will not be included here because it will not be of interest to a large enough group. MABEL CAMPBELL, *Chairman.*

Research in Home Economics Education.—The committee on research has been an informal group varying in number and somewhat in personnel because it seemed impossible to do much on this job by correspondence. Hence, each year a group of people meeting in the central region, where most of the institutions now doing graduate work in Home Economics Education are, have met to talk through some of the questions in relation to investigations and research which were troubling all of those concerned with graduate work in this field. The committee, during the past three years, has done three jobs: (1) set up some standards for research in Home Economics Education; (2) collected ideas from state supervisors and others in the field as to what are the most pertinent needs in research in education in Home Economics; and (3) kept an up to date list of the studies which have been conducted in Home Economics Education so that any committee group or any institution wishing information along any line in which investigations have been made can find what studies have been conducted and send for them at the institution where they are on file in the library. The list of standards and the list of studies which have been made may be secured by sending to the person whose name appears below. Three other jobs the committee is particularly eager to have other help with. (1) The committee feels that, in order to keep the studies as helpful a type as possible, each teacher should be urged to constantly ask herself in her work, what are the problems on which she would like more help and which she could well study scientifically. Then, when these teachers go to institutions they will have several practical problems in mind to study. Supervisors can do much to help teachers see these problems and to urge them to go to the institutions for graduate work with the definite purpose of making a careful study of these questions. (2) The committee feels there is a real opportunity for every supervisor to organize some simple studies which will aid in giving light on some of the puzzling questions in education. Sometimes just a definite plan of keeping records of what is being done under different conditions will help to answer some important questions. Many supervisors felt they needed information on the cost of Home Economics instruction but very little information is now available. No graduate student in any institution can make much progress with this until records are kept. Other instances of needed studies can be suggested by the committee. (3) The committee needs help in giving publicity to worth while studies and worth while work which has been done in education problems in Home Economics and in seeing that the results of careful study are made a part of the teaching program. BEULAH I. COON, *University of Chicago.*

QUALIFICATIONS OF LEADERS IN HOME ECONOMICS EDUCATION

Qualifications Essential for All Positions

TRAINING:	STRONG	WEAK
Years—four beyond high school		
Degree—Bachelor's		
Fields of Emphasis:		
Home Economics		
Education		
Psychology		
Science		
Economics		
Subjects in Education:		
Educational Psychology		
Observation and Teaching		
General Methods		
Home Economics Methods		
Principles of Education		
Experience:		
Homemaking		
Teaching		
Home Economics		
Years—4		
Vocational		
Years—2		
Traits:		
Considerateness		
Cooperation		
Dependability		
Good Judgment		
Resourcefulness		
Sociability		
Leadership		
Abilities:		
Executive		
To Improve Teaching		
To Develop Ability of Others		
To Judge People		
For State Supervisor or Assistant State Supervisor Add to Above Qualifications—		
Training:		
Years—One beyond Bachelor's degree		
Degree—Master's		
Subjects in Education— Philosophy of Education		
Experience:		
Teaching—Evening School		
Non-vocational Home Economics		
Years—2		
Supervision		
Years—2		
Traits:		
Breadth of interest		
Openmindedness		
Perseverance		
Forcefulness		
Abilities:		
To act as coordinator		
To analyze situations		
To be objective		
To interest others		
Journalistic		
To plan		
To promote		
To win confidence and respect of others		

Other variations were worked out giving score cards for local supervisor, head and assistant teacher trainer and itinerant teacher trainer.—ANNA KLOSS, *Chairman.*

INDUSTRIAL EDUCATION

Training Pressmen

THOMAS E. DUNWOODY
Director Technical Trade School, Pressmen's Home, Tenn.

The subject assigned me—Training Pressmen, is one that is naturally near to my heart because for nearly eighteen years I have been identified with this particular kind of work. In it I have found an interest and a pleasure that has held me so strongly that other work more remunerative perhaps has not been able to lure me from the training of pressmen and from devoting my attention to matters pertaining to pressroom operation. It is true that one engaged in this work must be interested in related subjects and in the printing industry as a whole. It is only through an intimate knowledge of the functioning of the entire industry that one can perform his tasks even though they are confined principally to one department of this great industry.

I have no intention of trying to take one iota of credit from any other department, or from any other craftsman, when I say that I am firmly convinced that meeting the demands made upon us as a result of our educational system affecting the pressroom presents one of the most intricate trade educational problems in the country. With all due respect to other departments, I believe that presswork, pressroom operation, is the most complicated trade in the printing industry. Those who have worked in this department and advanced no further than feeding envelopes into a platen press, will, of course, deride the idea. Those who have not come into intimate touch with presswork in all of its phases, will hardly agree that it is as complicated and as diversified as we who are in daily touch with the pressrooms throughout the country producing multiple classes of work. Neither the man running cylinder presses on ordinary cheap work nor the man operating a couple of platens doing simple presswork represent the modern pressman. Presswork covers a wide, wide field.

When one gives thought to the proper training of pressmen, he must take into consideration the fact that the field is not only large, but extremely diversified. Consider for a moment the various kinds of machines used in the pressrooms of this country and the varied requirements of the many different kinds and classes of work produced on them and remember that a pressman who is properly trained understands and is skilled in the operation of at least a majority of these machines, is competent to handle many different classes of work under varying conditions, and the statement just made can be more easily appreciated.

We often hear that this is the day of the specialists, that greater efficiency can be obtained through training a man to do one thing, one unit of operation, well and fast without requiring him to have a wide knowledge of his trade or related trades. In comparison to the craftsman of old who started and carried to completion the printing of an entire book or the making of an entire boot, or whatnot, the present-day artisan is a specialist. Perhaps it is most efficient in some industries to have a man spend his day screwing in bolt number nine ninety nine, but, conditions in those industries are quite different from those prevailing in the printing industry. It seems to me that those at the head of printing plants could be divided into three classes:

Those who want to manufacture printing on the same basis as cheap automobiles are built.

Second, those who wish to uphold the dignity of one of the most important industries of modern times.

Third, those who simply don't care how the industry gets along nor how printing is done so long as they get their profit.

The first type has no pride or craftsmanship and normally is not vitally interested in trade education. The second type is more inclined to encourage trade schools and the training of men because they realize that something beyond the ordinary shop training is necessary to develop the high degree of craftsmanship necessary for the production of good printing.

We are not concerned with the third type. Possibly we will have them with us always and we will merely have to try to live them down.

We have gone along with the idea that modern industry calls for keen specialization for many years past. We have not given the consideration to the development of craftsmen that we should have done and so we now have too many men who are skilled in only one line of printing on one particular press, or the man who is able to do nothing in the composing room but to set straight matter on a machine, and so on in other departments. Most of us can remember when we gave no consideration in the South to whether or not a pressman could produce four-color process printing. When I started in the pressroom a few years ago, there were one or two men in the South who knew something about four-color process printing. None of us were worried, though, on account of a majority of pressmen being ignorant of this work because generally speaking, it simply wasn't done. Only a few printing establishments turned out halftone work with any degree of success. The color specialists were up in Chicago and New York in the big color type houses. Many of them did not know how to print a type form, but they were good at producing color work, and that alone.

Today any printer doing what we would call a general line of work is likely to catch a four-color process job. Any printing establishment doing general printing is very apt to be called upon to produce thousands of direct-by-mail pieces of printing on which two or more colors are used.

The machine manufacturers are vieing with one another in an effort to design, manufacture and sell machines that will run at high speeds; those interested in offset work printing overlook no opportunity of introducing those machines, and the same implies to manufacturers of rotogravure as well as rotary letterpresses, and hence, the machinery problem is becoming more diversified than ever in our industry. The employing printer does not wish to change the personnel of his pressroom every time he changes machines. He shouldn't want to make any radical change even when going to an entirely different process or method of printing. It is natural that the tendency is toward quick action in the matter of starting a new machine without any lost time. Experimental work is costly. Training men for a radical change that has taken place in the shop is also costly.

It is easy to see from this brief

outline that new elements are constantly entering into the industry which make it imperative that the craftsman of today take his nose from the grindstone, observe the tendencies and prepare himself for the changes that are constantly being made and that will continue into the future.

We have assumed the position that while the training of apprentices is a worthy undertaking, it is unquestionably good for the industry and an absolute necessity, if we are to interest ourselves in solving the problems of tomorrow. Still, certain agencies must be at work to reach further than apprentice training. We contend that one of the greatest needs in the printing industry as far as trade education is concerned, is the proper training of journeymen so that they may be kept abreast with the times, master new elements, new processes, new machines and methods in order that these might be introduced and be available to the average printer without the necessity of the tremendous waste that would otherwise be necessary while men ignorant of these new elements were experimenting and learning in the shop.

I hope that my thoughts on this subject can best be brought out through a description of the educational system used by the School with which I am connected—the oldest and the largest school in America, and, so far as we know, in the world, conducted for the purpose of training pressmen. Our School was established about eighteen years ago, long before the present interest in trade education was manifested and at a time when trade schools were looked upon with outright antagonism by both employers in general and employees. The offset press was just then creating a stir; printers did not know what offset printing was and yet they had heard tales of its remarkable speeds, its ability to print halftones on uncoated papers and the elimination of makeready by this process. Enthusiasts were predicting the overthrow of letterpress printing and the swift supremacy of the new, marvelous process. In their estimation, the industry was to be revolutionized. Few could actually contradict these extravagent statements for the modus operandi of the new process was kept a secret, most shops operating these machines behind closed doors. Practical men were skeptical about the claims for this process, but it was nevertheless, that fear based on ignorance of a certain kind plus the inherent desire in most of us to play safe in the matter of earning a good livelihood.

So with good leadership, much initiative, and some fighting, the organization was able to get the School started. Today it is generally looked upon as one of our greatest assets. The men are sold on it because it has met the requirements of yesterday and is still successfully meeting them. Of course, the activities of the School are not confined to any one process of printing, but on the other hand, we use all three processes; letterpress, intaglio, and offset.

In reality, it was not alone the advent of the offset press in the printing field that caused the establishment of the School. Many there were who recognized the importance of apprentice training and some knew that there was a need in the industry of some agency which could meet the present and future demands for journeyman training.

The Technical Trade School at Pressmen's Home is somewhat unique, and I really do not know how much good any of you can get out of a discussion of the systems of training used in this particular School. Our problems and the demands made upon us are somewhat different from those of most schools.

We have approximately a thousand men in training constantly but only a very small percent of these men come to Pressmen's Home and our student body at all times is comparatively small. This is due to ne fact that we give training throug correspondence and through practical demonstration courses at the School for journeymen pressmen. We do not stop here, though, but every regularly registered apprentice pressman is compelled to take a home study course and to stand oral or written examinations.

I think that you will be interested somewhat in our system of training apprentice pressmen. First of all, let us understand the meaning that we put upon the term, Apprentice Pressmen. In the commercial field, the apprentice pressman is the man who has served some time in the pressroom. He has gone through that elementary stage of the printer's devil, sweeping floors, washing rollers, etc., he has been classed as a feeder or an assistant and as such, he has either fed presses, or operated automatic feeders, he has spent at least two and possibly four or five years in the pressroom and has now entered his real apprenticeship as a journeyman pressman. He is registered locally and his resignation certificate is sent to us. His course starts immediately. Lessons are sent him every three months until the course has been taken and until he is adjudged by the employer or his representative, the pressroom foreman, as a competent journeyman. In the meantime, he is required to stand quarterly examinations given him by a local examining board, and we have local examining boards in practically every city in the United States and Canada. We strive to secure the services of men for the board who have a good local standing as craftsmen and as executives, and in the main, we succeed in this respect. The last four quarterly lessons are review questions and this constitutes a final examination. The students must answer hundreds of questions in writing and send the answers to the Technical Trade School where they are gone over carefully and graded.

It is not difficult to visualize the value of the contact between the foreman or the assistant foreman of a pressroom and the apprentice pressman through this educational work. Here and there the system has not worked out as well as we would like to have it function, but in the main this particular system of apprenticeship training has been far-reaching in its results and in every city in this country the effects of such training have been felt. It is necessary for these young men to take this training and to successfully stand these examinations before they can be recognized as journeymen pressmen and the contact made between the executives and the apprentice pressman gives the former a better opportunity of actually checking up on the competency of his future pressmen. It gives him the incentive, awakes in him the interest that a foreman should have in his apprentices and in his journeymen.

I happened to be in a large city when we sent the first lessons to about two hundred and fifty apprentice pressmen of the newspaper pressroom in that city. The apprentice pressmen received them, looked them over, took them home and studied them a little that night, then went down to their respective shops the next day and asked the journeymen numerous questions. They were embarrassing ones because the journeymen themselves had to hesitate before answering them and yet they were practical questions dealing with the journeyman's everyday work.

You are not interested, I am sure, in the numerous details in the difficulties we encountered at first in the establishment of this part of our educational system. This brings me to the matter of giving to journeymen pressmen the same opportunities of home study that are granted the apprentice pressmen. We have journeyman courses in various kinds of printing which are given at actual cost.

The courses taken by those who come to the School are designated by us as potential demonstration courses and this is the term I shall use in referring to residence courses. It did not take us long after establishing the School to find out that there wasn't much profit in training pressmen. We found that we could not hope to break even no matter how many students we might admit at one time and no matter

how economical we might be in the operation of the Technical Trade School. When we fully realized this fact and analyzed the situation, we decided that since we could not make a financial success in training pressmen we would use all the resources at our command to turn out the best craftsmen we possibly could regardless of cost. I do not mean by that remark that we tolerate waste or inefficiency, but, in as business-like a manner as possible, we give this training in as thorough and efficient a manner as we possibly can, holding one objective mainly in mind and that is the real development of craftsmanship.

I know many pressmen in this country and many pressroom executives. I have not as yet found in all my years of experience one who can not benefit through a course in the Technical Trade School, and when I say this, it is no reflection upon the pressroom workers of this country because I believe that the same would hold true in any trade, profession, or business, if it were tested out as thoroughly as we have tested training pressmen in the Technical Trade School. There are many reasons for this and some of these I have already pointed out. The trade is very diversified, ever-changing, and calls for wide knowledge and experience. Then too, we have at the Technical Trade School several hundred thousand dollars worth of equipment including rotaries, cylinders, job cylinders, platens, offset and rotogravure presses, automatic feeders, and most of the latest devices and accessories. We have a system of training which purposes to meet the individual requirements of the men who come to the School and these requirements vary considerably. We may have a platen pressman who has run nothing but envelopes, letterheads, etc., who has for his objective the efficient operation of job cylinder presses. He hasn't had the right training, he knows nothing of automatic feeders, automatic presses, he knows nothing of inks, colors, etc., as are used in many shops operating these particular machines. We might have the cylinder pressman, experienced in nothing but black and white work who wishes to master process and other color printing. He has no technical knowledge of inks, papers, rollers, good makeready, etc. On the other hand, we might have the cylinder pressman who wishes to learn and become proficient in offset printing. He may never have seen an offset press in operation. We may have the man who wishes to stay on the particular type of machines on which he has worked for many years but who wishes to gain a more general knowledge and a greater skill in the production of various kinds of printing done on these machines in first-class establishments. Then, again, many printing establishments send their executives to us for special training. So you see that the objectives of the men whom we must handle are varied. They differ from one another in past experience, ability and knowledge. Thus each individual presents to us a different problem. His past experience is considered, his objective is found, his ability tested, and then his course is laid out.

We have between fifty and a hundred practice forms for the various presses and each student handles so many of these practice forms within a given time. All students do not handle the same forms, however, because they are not uniformly suited. The schedule is changed quite frequently as the student progresses because obviously, some are bound to make better progress than others. We have no set courses and all courses are made as elastic as possible so as to conform to the requirements of the individual. There is no set time for the completion of any course. Some will naturally finish more quickly than others.

We find that it is more effective to have our students spend most of their time actually doing the work rather than attempting to explain most of the things in the lecture room. Students are required to be at work on time and except for a few lecture periods each week, spend the entire day in actual practice on machines. While this work is going on there is only one man to a machine and that machine is in his charge. He is responsible for what occurs and is answerable to the instructor under whom he is working. Our instructors handle only six or eight students each, and their entire time during the eight hours each day is devoted exclusively to their group of students. The only exceptions to this are in the lecture room or when the mechanism of certain machines may be demonstrated to a larger class.

Usually, the training of executives is no more complicated than the training of journeymen because if the executive be really competent, he can proceed on many operations and in many of his studies simply through a little guidance upon the part of the instructor.

The average man stops at the School ten or twelve weeks during which time he receives a highly intensive course as you can see.

It might interest you to know that we have been forced to go beyond the training of apprentices, journeymen and executives. Without any effort upon our part to create the demand, there has gradually grown a dependence upon the School to solve through correspondence, or otherwise, difficulties that arise in many of the pressrooms throughout the United States and Canada. As a result of this we receive hundreds of inquiries every month dealing with numerous phases of presswork and pressroom operation. Some of these come direct to the School while others received by The American Pressman, a magazine we print in the School and one devoted especially to the operation of pressrooms. A very small percent of these inquiries and answers are published in the magazine. They are varied in nature but naturally, most of them deal with more or less common pressroom troubles encountered in the various classes of printing.

These demands first came for service through correspondence, but gradually, they have been extended to a demand for personal service and so we have created an Engineering Department to meet as many of these demands as is possible under the circumstances. One division of this Engineering Department is devoted to newspaper printing exclusively, and perhaps the heavy demands made upon that department were due in the main to the general use of halftone illustrations in newspapers and the subsequent demand for a little better printing of the newspapers. Then too, there has been a strong demand for efficient operation and greater production. In other words, the problem was to get better quality without lowering in any way the output of newspapers. If anything, this output has not been lowered during these recent years of demands for quality but on the other hand, it has been radically increased. We have given this personal service to over three hundred of the largest newspapers in the country.

We are unable to meet all of the demands in the commercial field but have taken care of many through personal service. Especially is this true of some of the large houses making a specialty of magazine printing. We have done things that may rightfully be considered out of our jurisdiction. We have o.k.'d contracts between publishers and magazines and the printers doing the work. We have guaranteed the successful operation of certain types of improved machinery and have been called upon to assume other responsibilities along this line but it is all educational work and rightfully falls to the Technical Trade School, or at least, a portion of it does because we recognize that we, of the printing industry must give this cooperation when it is demanded. It looks as though we will have to go still further and we hope to be able to meet the demands that are made upon us in the line of developing more efficient and better craftsmen for our industry.

The Job Assignment Sheet

By F. W. WILSON
Instructor in Machine Shop, Arsenal Technical Schools, Indianapolis

The job assignment sheet used in my class came as a result of revisions from time to time, of other similar sheets. The amount of good that is accomplished by it will depend upon the character of it's use by the individual teacher. To use this chart most efficiently, the teacher must know thoroughly, the sheet's layout, how to use it, the jobs to be worked and the ability of the students.

This chart is made by placing a blue print under a vandyke. The size of it covers the face of a drawing board. In a one inch space across the top is printed, "Job Assignment". To the right and a little lower, a notation is made relative to the method of procedure. "First, make a sketch". "Second, make a written outline". The rest of the sheet is divided into squares of five by seven inches. Each square has two narrow columns at each edge and a wide column in the center. From left to right is printed in the columns as follows: Name, type of job and grade. Under the headings, type of job and grade there are ruled lines three sixteenths inches apart. These lines are used to make in detail a record of the job and grade.

A record on this sheet is only made of the fourth semester and advanced students. Each boy has one square and enough jobs written down to last him through one grade period or more. After a student has made a sketch of the job, a written outline of the procedure and an order for the material, all of which is approved by the teacher at one time, he is ready to go to work and a small red line is placed by his grade column along side of the job.

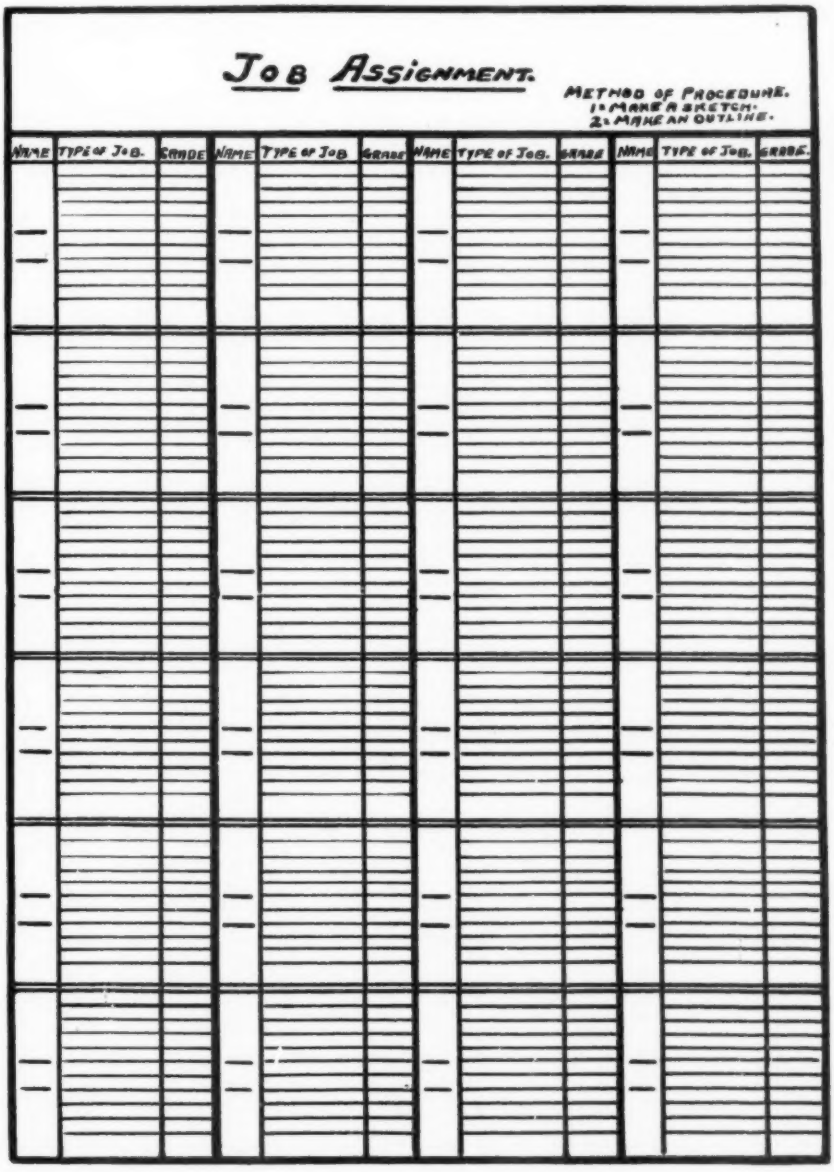
A sketch from a student is some indication whether he has in mind the shape and size of the job. The outline is nothing more than a custom made lesson sheet. If his outline is a little off color, through the aid of questions or suggestions by the teacher, the student is capable of correcting his own error. He can see his mistake because he has visualized each operation of the job from start to finish. After all, isn't it necessary for a machinist, tool-maker or die maker to visualize his job, step by step from start to finish, only mentally?

When a job is completed the student is given a grade. After many jobs are done and the report cards have been taken care of, it is time to make red checks out of the small red lines along side of the grade column. The reason for doing this is that when the second, third, and fourth grades come out you can readily see the red checks are jobs of the previous grade period, while the short red lines represent jobs of credit to be given at that time.

There are three types of jobs on my chart as follows: first, jobs to be done for other shops; Second, maintenance jobs of my machine shop; and last, jobs of commercial value for the student to take home. The students quite frequently bring in jobs which are fine if not over done.

In order to make a permanent record, cut the five by seven inch squares out and put into book form. This, of course, will be done at the close of each semester. A record of this type is valuable in this respect. When placing the boy in the shop you can talk as the shop does, in terms of jobs. In addition to this you can give him your rating for each job. The executive after being informed of the fact that this represents two hundred seventy hours of work can judge for himself whether the boy is fast, medium or slow worker.

In behalf of this Job Assignment Chart may I say that it does the following: 1. The student is never out of a job. 2. No job can be side-tracked. 3. Automatically tells the speed of the boy as a worker. 4. It gives a place to assign jobs as the jobs come up. 5. It is a type of permanent record. 6. It is an incentive for students to keep pace with other classmates all of which helps to make more active students and eventually better mechanics.



Apprentice Training in the Cut Stone Industry

By Mr. Horace Long
Supt., The Georgia Marble Company, Tate, Ga.

I am glad to have the privilege of speaking to you on "Apprentice Training in the Cut Stone Industry". My Company is comparatively new in the field of vocational work but I shall try to make clear what it is that we hope to do and how well we believe we are succeeding. I think I can make this clearest by discussing first: The preliminary problems we faced in getting ready for this task; second: The plan of our actual operation and third: Some conclusions we think follow after having worked the plan thus far.

In 1927 thru the untiring efforts of the Georgia State Board for Vocational Education and the Georgia School of Technology, the Georgia Marble Company agreed to start a class and to begin in our shop the work of vocational training. My Company accepted the responsibility after carefully weighing the situation and with a full feeling that there was combined both a responsibility and a privilege.

The first problem we faced in undertaking this new task was the important question of whom should be admitted or selected for such training. Any project that has to do with human nature will have its percentage of failures and we began with the belief and knowledge that a certain wisdom should be exercised in the selection of boys that would materially reduce this percentage as compared to what it would be if we simply took the boys indiscriminately. We attempted to wisely select the boys so that there would be no useless waste of effort and money on boys we were certain were not adapted to the work.

We, first of all, accepted as a guiding principle that this opportunity ought to be open to those who for various reasons most needed this kind of work and training for a livelihood. Our second step was to select out of this group more narrowly those whom we believed were most anxious to have the opportunity and most likely to make good. The selections were made by Company officials who knew the community and knew most of the boys personally. This close knowledge of the community enabled us to fit our program of vocational training in with the general education program of the community. Colonel Sam Tate, who owns most of the stock in the Georgia Marble Company, believes in education and has provided educational opportunities for every boy and girl in our midst. The Company has spent some $250,000.00 for a school plant and pays the salaries of more than forty teachers in order that every one may have an opportunity to obtain a high school education. However, when all this has been done there are still many fine, upright earnest boys who will not or who cannot finish high school because of conditions at home or other reasons. The Company therefore decided to do the best thing for these boys by spending some money in promoting a class in vocational training and see what could be done towards making some real workmen.

As suggested above, we have tried to carry this to those who needed it most and who were most likely to make good. In this way our vocational training class is regarded as a part of the general educational program for the community and we feel that we are doing a real educational work.

Among the first steps in preparing to undertake this work, was the matter of selecting an instructor to have oversight of these boys in the shop. We realized that not only must this man be a man who knew the business from a practical and technical standpoint, but one who had the knack of managing boys and keeping them enthusiastic about their work. Boys of this age are apt to suffer a lapse of interest as soon as the novelty of it wears off and we selected a man as instructor whom we believe is best fitted to keep the boys interested and enthusiastic. Furthermore, in placing the boys under one instructor who understands each boy's abilities and deficiencies and who helps each accordingly, we believe we have a plan of instruction by which all the apprentices will be encouraged to do their best; thereby bringing them in three years to a degree of proficiency that under the old plan, or lack of plan, would have taken several years longer and in most cases would not have been attained at all.

In selecting boys for this training it has been our policy to pay more attention to their general mental attitude than to any other particular thing. Long experience has taught us that the boy whose high school education has made him overconfident does not succeed as well as the boy with less education who realizes he will have to struggle for everything he gets. The boy who does not already think he knows everything is more teachable and learns our type of work quicker than the other type. This is a general mental attitude which we are able to detect in our preliminary examinations. We are careful about these matters in our general preliminary sizing up of an applicant, for our aim is to produce really high class workmen who know and are able to do their work in a way definitely above the average. There is always an ample supply of men who claim to be skilled cutters and carvers but any mill superintendent knows that really high class workmen are hard to find and are never out of work. We do not feel that we would be doing these boys any favor to give them a training that would turn them into merely common cutters, carvers, letterers and tracers. The supply of this type is already very large and merely ordinary ability along these lines does not insure a man against unemployment. We have pitched our whole scheme on the idea of producing really high class men and we believe that we are succeeding in our effort.

Another general characteristic we look for in an applicant is evidence of a real desire and ambition to do something. There are any number of boys who by the way of experiment would be willing to try the vocational training class for a while. We have tried to distinguish between the boy who really wants to do the thing and the boy who regards it as something he is willing to see whether he likes it, but who on the whole is not very interested in it. Furthermore, we look for the characteristic which we may describe in general as the willingness to work hard. The purpose of this is not because of the additional work such a boy might do but because under modern conditions a boy who is not willing to work hard to get to the top has very little chance to succeed.

As for more particular qualifications, we are very lenient. Some of the boys whom we have accepted, did not even know the multiplication table, which along with a whole lot more mathematics and other related subjects, is essential to the work of the high grade stone cutter that these modern times demand. Several of them had very little or no education, but showed good native ability and a willingness to be taught. Only one of our boys had finished high school and two others had a very little geometry. One of the boys said he studied geography until it said the world was round and turned over every twenty-four hours and then he quit. The boys were examined along these lines to determine just what additional things it would be necessary to teach them in the technical class in order to insure their success in the work they were undertaking.

All these preliminary inquiries are carried on in the presence of the boys' fathers. We still think this is wise. It insures that the parents will understand fully what it is we are trying to do and insures their co-operation to a degree that might not be otherwise possible. All effort and money is wasted in the case of a boy who carries the work for a while and then drops it and we are concerned to have the fathers committed to the whole program in order to have their co-opera-

Continued on Page 32

COMMERCIAL EDUCATION

Training for Business Service

ALFRED D. DANZIGER
Attorney at Law, New Orleans

I very much appreciate this opportunity to make a brief, special plea for better and wider training for citizenship. I am greatly gratified that this privilege is accorded me to bring this message to you who are so deeply concerned and so widely influential in the education of our youth.

It is entirely appropriate that many of you are advocating the fitting of secondary education to the needs of the individual, militating against the sorry spectacle of helpless and hopeless "square pegs in round holes" that confronts us so pitifully often in the business world today.

However, in your zeal for the individual's development, in your desire that he shall grow along the line for which his natural propensities best fit him, whether he excel in carpentry or calculus, mechanics or medicine,—literature or less—is it not equally desirable that he be fully equipped for those occasions when he must act not only individually but as an integral part of a straight-thinking, direct-acting *group* for the welfare of his city, his state, his country?

Unless, when his academic education is completed, be it long or short—he has been taught not only an appropriate means of self-support, but has been also initiated into the guild of good citizens—you have not adequately prepared him to take his place in the civilization of today.

At the end of a year as President of the New Orleans Association of Commerce, closely concerned in the vital problems that confront one city, it seems that the crying need in many American cities is for more intelligent, unselfish, willing workers.

Apparently, large numbers of our population are not sufficiently interested to vote or discharge other sacred obligations of citizenship. Have they been sufficiently prepared to study great public questions seriously and impartially; or has the urge been implanted in them to act vigorously, judiciously and altruistically in solving great community problems?

The schools teach all to salute the flag—sing "America", quote the constitution—but do they bring home to their students a realization of the full responsibility of each in building the institutions of city, state, and country on a firmer basis? Is it not possible to inculcate in our youth a peace-time patriotism which shall send into this battle for better cities, young people who are more fully equipped and fired with an intense desire to help in obtaining more trustworthy and efficient administration of vitally important public affairs; whose ideal shall be a well planned community whose growth is guided by intelligent direction *pro bono publico* and not by the exploitation of private interests? We plead for more young people who will place emphasis upon the utilization of the achievements of modern science in dealing with the sanitation and health problems of a city, alive to their duty to the needy, the sick and the unfortunate. Sentimental attitudes toward charity must be supplemented by appreciation of the value of modern scientific methods of care and relief. Let us have wider education for public safety, an aroused, alert consciousness for the prevention of traffic and other accidents, with our cities made safer through wholesome respect for law and due regard for the rights of others. Let them have where practicable a working knowledge of public utilities, water works, gas and electric light, street car transportation, and the administration of these in the interest of the people and not principally for private gain. Help them to properly value parks and playgrounds, and work for the development of recreational habits so that leisure time may be used more profitably.

In conclusion, we are as one, I am sure, in the belief that there is a wider field of usefulness for teacher and pupil which I have endeavored to advert to, than has yet been fully cultivated. Let us put forth even greater efforts to send our youth into the civic and the business world firm in the belief that good character is the foundation of all civic virtues, ready to argue,—to strive,—to sacrifice when necessary,—in the support of standards and institutions which raise the plane of administration, promote social consciousness, and further advance the march of progress.

Administration of a Program of Rehabilitation

Continued from Page 16

this assistance. Publicity is absolutely essential to the promotion of the program. As a part of the State Educational force rehabilitation comes in naturally for its share of the publicity. This relationship gives prestige to statements about its accomplishments. And on the other hand the tremendous human appeal of rehabilitation work helps to get publicity for all the educational activities and to make friends for the whole program. Statements of accomplishments in rehabilitation certainly catch the interest of the public.

In selecting the personnel for administering a program of rehabilitation great care must be exercised to secure persons with genuine human sympathy and fairness, and at the same time with good judgment and ability to make accurate evaluations. It is so easy to discourage certain types of cases, and at the same time the State cannot afford to spend its money and the time of its officials on a case which offers no possibility of vocational re-establishment, just because of the appeal to sympathy. We have found it to be of tremendous advantage in dealing with commercial concerns and private training agencies to have men of fine business judgment and the courage of their convictions. There is possibility of the trainee's being exploited, of being held on a certain job far beyond the period required for learning and staff members must have the courage to demand the advancement of the trainee, as well as the knowledge which enables him to know the point beyond which training ceases.

There are numerous qualifications which the successful rehabilitation worker should possess. It is always difficult to secure any person possessing all these qualifications. However, the man who heads up the program in a State, who is responsible for advancing the objectives of the administration, should possess the majority of these qualifications. Men in subordinate positions with fewer qualifications, however, with possibilities of learning, may be used, but by all means there should be one understudy who shows signs of leadership and ability to carry the responsibility. The duties of this

Continued on Page 32

Apprentice Training in the Cut Stone Industry

Continued from Page 30

tion in keeping the boys to their purpose. All the fathers agreed to cooperate with the Company in keeping the boys at their task for three years or until we are able to make high class workmen of them.

All that I have discussed thus far has had to do with the preparation for the real task. The actual carrying out of the training involves both the shop and letting him do the elementary things that are essential to making a stone cutter. This includes breaking out the stone, then pitching and pointing. These men are called scabblers, or pointers and the work is actually removing the rough stone by breaking or tooling. They are kept at this for three or four months, or until they know how to do it well. This is a very expensive period for the company for they ruin many dollars worth of stone. They are next given a piece of stone and required to cut some simple wash or moulding on it which by the way is a total loss to the company. After they have learned to use the pneumatic machines they are given some bottom bases or copying to cut to train in this end of the work. Each of these steps requires months of training because a high degree of skill is gained slowly. This side of the training is largely a training of the hand and eye, though there are numerous conditions that arise which require individual judgment and give the apprentice bountiful opportunity to show whether he has initiative or whether he is only capable of following a rule.

All the time the training in the shop is taking place, it must be remembered that the apprentice is spending four hours weekly in our specially equipped school room under the instruction of our chief engineer who teaches them mathematics, drafting in general which includes geometrical drawings, measuration, free hand drawing, perspective, lettering, the classic orders of architecture and other technical and artistic subjects directly related to his shop work. Progress in this study is governed by progress in the mill so that each boy is able to lay out his particular work on the stone itself and is able to understand blue prints and shop drawings which may be necessary for the particular kind of work he is doing. They get no pay for the time spent in the night classes but each week one of the boys is in the drafting office full time, getting pay at the regular scale of wages. This week is spent in making simple scale drawings, full size details, making blue prints and is similar to, though not as extensive as, serving an apprenticeship in the drafting office. Under present conditions less than 50% of the so called workmen in our line are able to lay out their own work and they know nothing of reading plans or blue prints. This unfortunate condition will not be true of our apprentices. Of course the Company designer begins with elementary arithmetic, sketching, and so on into the more difficult problems. In these related subjects the boys have progressed far beyond our expectations.

The apprentice starts at 17½ cents per hour and we advance them 2½ cents per hour at the end of every six months. We give them a bonus of 2½ cents per hour at the end of every six months. This is to encourage them to be loyal to their jobs and finish their training. At the end of six months, the boy who has not shown evidence of ability to make good is dropped while those who have are paid their bonuses and advanced to another six months of training with a wage increase of 2½ cents per hour. By training these boys in one particular line it would be possible for the company to realize a profit off their labor in a short period of time, but the training we are giving them covers the whole field of operation and requires a lengthy apprentice period at a large cost to the company. The first aim of the company is to make high class workmen and to become this they must have training in every phase of the work. Our aim is to produce versatile workmen who are able to handle any job that turns up in the department. The period of training is therefore much longer but the class of workmen is correspondingly much higher and their general usefulness and earning ability is correspondingly increased. No where in the whole process do we forget that our ideal is a high class and not an ordinary workman. Throughout the training we require that these boys shall do an even higher class of work than is required of our regular workmen for the reason that the man who acquires the habit of doing high class work will not in future years depart from his training.

We feel that in insisting on this broader and more intensive training we are doing the public, the stone trade, and above all, the boy himself a real service. A man with this training is fitted to go into any wholesale or retail shop as an all around workman and do whatever comes to hand in that shop. So far as our business is concerned this is not necessary. The volume of our business is so large that it permits us to make use of detail specialists who know only one phase of the work. But such a man would never fit into the small shop where one man must do many things. In the whole project we have thought of the

Continued on Page 39

Administration of a Program of Rehabilitation

Continued from Page 31

job are unique and any serious break in the chain may prove disastrous. The requirements of this job are such that the man with the usual professional qualities of the school man may fail utterly. Then, too, the types of service are so varied and require such immediate action that necessarily much responsibility must be delegated to the staff member handling the cases in the field. It may prove disastrous to take time for consultation with a superior officer.

In my opinion no two factors are of greater importance in putting over a worth while program in rehabilitation than prompt contact with the case after injury and adequate follow-up after placement. Because of this the administration of a State program should provide for considerable elasticity of interpretation and freedom of action on the part of the staff members. The best administrative policy is one which recognizes the needs of the case and possibilities of prompt return to remunerative employment as of first consideration, and reduces the red tape and detail to a minimum. These matters should never be allowed to interfere with the large objectives of the program. For these reasons I believe in delegating to the field men in rehabilitation all the authority they will use wisely. Having said this it naturally follows that in addition to extreme caution in selecting the staff for promoting the program, they must be thoroughly trained in the techniques of handling the job, in the ability to make nice discrimination. That is to say there are certain types of cases with a tremendous human appeal but which offer meager prospects for successful rehabilitation. For instance, the tubercular patients as a rule present many obstacles to a successful rehabilitation program, and the blind are by no means the most promising cases.

With all our human sympathy we must approach the case with an eye to the best use of public funds, and the quick and permanent response to rehabilitation techniques must to a large extent govern our actions. The successful staff member is going to keep uppermost in his mind eligibility and possibility of profiting from the service.

May I add this final warning—the supervisor must study carefully the case and avoid giving too much assistance, not develop dependence on the part of the rehabilitant. Stimulate always his self assertiveness, and independence, make him feel we are only giving the little shove, that he is really the man who is doing the job and getting back on his feet.

TEACHER-TRAINING

Testing Candidates for Teacher Training Classes

WALTER B. JONES
University of Pittsburgh

The University of Pittsburgh now has more candidates for vocational teacher training classes than there are positions to be filled in the district which it serves. This oversupply, especially in the metal, printing and building trades, makes the selection of trainees possible and without doubt it will result in raising the standard of the teaching personnel when the procedure is sufficiently well standardized.

In the first part of the paper are described the beginnings of this task and the selective devices used while in Part II special emphasis is given to trade tests and their development.

Beginnings and Auspices

Three years ago the P. S. E. A. launched a research program which embrased most of the professional groups in the Association. The vocational Educational and Industrial Arts section appointed a committee, the individual members of which were commissioned to initiate and promote a research project of their own choice. The writer chose to work with the help of a local committee on the project here described. The members of this committee now are Prof. F. T. Struck, Pennsylvania State College, Prof. Glen U. Cleeton, Carnegie Institute of Technology, and Dean G. H. Alderman, Prof, G. D. Whitney, Prof. A. M. Goldberger, and the writer from the University of Pittsburgh, and a number of graduate students in education.

It is the function of this committee to devise ways and means for making the proper choice of applicants for vocational teacher training classes. To this end a plan has been projected consisting of the following parts, which will be described briefly:

1. Mental ability tests.
2. Oral and written English tests for diagnostic purposes.
3. Space relations test.
4. Vocational interest analysis.
5. Personal History Record.
6. Personal Interviews.
7. Trade tests based on job analysis. We have experimented with two mental tests, Bureau Test VI and Otis Mental Examinations, both of which are paper and pencil group tests and are largely linguistic in character. Our next step will be to try out some of the new form boards to see if they test more accurately the native ability of our "diamonds in the rough".

Achievement tests in English, both oral and written have been used to determine where weaknesses exist preparatory to recommending remedial work. We know, of course that this is one of our chief defects when we are compared with other teachers. A number of good English tests are now on the market. The Pressey English tests have been fairly satisfactory for our use.

The Thurston-Jones Space Relations* test is being used in an attempt to measure the intensity of one's mental imagery, i. e., one's ability to visualize objects in space. This ability is considered extremely important in certain vocations and may serve to select persons most proficient as tradesmen in those fields.

The vocational interest analysis is a device standardized by E. K. Strong, Jr. at Stanford University. It is being used in an attempt to select high class tradesmen by cataloguing their interests and comparing them with successful persons in the same vocation. We need the help of other teacher training centers in standardizing this device for the trades. Fairly well established forms are now available in the professions but none are available as far as I know in the trade.

Personal History records answer the general question: How have you spent your past? Recommendations from employers attempt to answer how well you have spent it, but a little experience will show one how unreliable is the latter method of gaining information.

Personal interviews are required in which each candidate presents himself to three members of the faculty for independent appraisals of his personality and promise as a teacher. A rating scale is used to record the judgment of the raters.

Trade tests are being developed and standardized at the present time in a number of different vocations. These tests are comprehensive objective examinations composed usually of five sections—oral, written, picture, procedure, and performance. Among those now in preparation are tests in interior wiring, auto-mechanics, sheet metal work, printing and plumbing. These tests aim to measure the level of trade proficiency which a person has reached in his field. Since they are validated with trade proficiency as a basis, and built on the ladder principle, they may be used to measure achievement in vocational schools having training periods of various lengths. That is to say, the achievement of those who are in various stages of apprenticeship may be measured as well as those who have arrived as journeymen and experts.

Administration of the Program

During the first part of each semester the data described above are obtained. Tests are administered in the classroom and shop. The trade tests are given jointly by the University of Pittsburgh and Carnegie Institute of Technology. Through an agreement between Arthur C. Jewett, Director of the College of Industries and Prof. G. D. Whitney, Director of the Department of Vocational Education at the University of Pittsburgh, the heads of shop departments at Carnegie Institute of Technology were made responsible for certifying to the trade proficiency of the candidates and rating them on performance. The development of objective trade tests is designed to make these measurements of trade ability more exact.

PART II

TRADE TEST PROCEDURE

To illustrate the trade test procedure I shall present and describe the Storage Battery Test, one of the units of the electrical division of the Auto Mechanics Examination.

Fleming*, in a Masters Thesis at the University of Pittsburgh, has developed this test and partially standardized it. The trade analysis was taken as a basis for the test chiefly for three reasons: (1) to determine the candidate's all around trade ability, and, if found to be weak in certain particulars, (2) to recommend remedial work where necessary, and (3) to make possible

*Committee on Classification of Personnel, U. S. Army (Confidential Report) Chapman, J. C., Trade Tests. Henry Holt & Company. New York.

*Fleming, Joseph W., An Objective Method for Selecting Potential Automobile Instructors. M. Ac Thesis, University of Pittsburgh, 1929.

the use of the trade test in vocational classes as well as in selecting tradesmen for teacher training classes. Being based on a comprehensive analysis, a teacher may choose from the series of tests for a given trade those parts that correspond to the outline of instruction which he has followed in teaching.

The selection of the items in the analysis (page 2 in the experimental form) is based on information furnished from (1) responses to fifty letters from manufacturers of automobiles and automobile parts in the form of charts, blueprints, cuts, and shop manuals, (2) textbooks and courses of study, and (3) from interviews with instructors in automobile work and with automechanics.

Care was exercised in selecting those learning factors which manufacturers, instructors, and mechanics considered essential. The analysis is the form now in common use, namely a division of the trade into large blocks; a division of these into smaller divisions; and a final division into learning factors.

The learning factors that applied to the servicing and repair of the automobile storage battery were then used as a source of questions and problems for the five test forms (oral, written, picture—a part of the written test—, procedure, and performance.)

Oral Test. The oral test is so devised as to give the applicant an opportunity of expressing himself freely on a question and yet be confined to a specific answer. The questions are put in his hands so that he may write if he desires while giving an oral answer. A record of answers is kept by the examiner. This test is not essentially different from those developed during the World War for the classification of personnel.

Written Test. The written test includes true-false, multiple choice, matching, and picture forms. Two types of questions were recognized in making the test. (1) Those dealing with the technical or related phase of the work, such as name of acid used in a storage battery, and (2) those questions that relate to the actual doing of the job, e. g., the best way to restore a sulphated battery is: to charge at a gradually increasing rate.

Procedure Test. This test is composed of a number of statements of "what to do" marked 1, 2, 3, 4, etc., not in proper order of procedure. These steps are to be marked with a number indicating the order in which the steps should be performed in doing the job.

Performance Test. This test is designed to note the degree of skill possessed by the candidate when performing the specified job, and is to be given in the shop or laboratory under the observation of a skilled examiner.

To Whom the Test Was Given

The test was given as a partial standardizing procedure to ninety persons classified as (1) novices, (2) apprentices, (3) journeymen, and (4) experts.

The Novices included 20 young women enrolled in the Frick Teacher Training School of Pittsburgh, Pa.

The Apprentices were students enrolled in the Automobile Department of the Allegheny Vocational School, and apprentices serving time in the battery service station; all told, twenty-seven in number.

The Journeymen represented twelve automobile mechanics enrolled at the Allegheny Vocational Evening Trade School, specializing in Ignition work; and fourteen automobile mechanics enrolled at the University of Pittsburgh, Department of Vocational Education, enrolled as prospective vocational teachers.

The Experts were a group of fourteen men employed by the Exide and Willard battery companies, and three instructors teaching automobile work in the Pittsburgh Trade Schools, making a total of seventeen in this group.

Criteria of Good Examinations

Good test construction requires that the following criteria be met:*

I Validity.
II Reliability
  A Objectivity
  B Extensity or adequacy of sampling.
III Ease of administration and scoring.
IV Norms and standards for evaluation of results.
V Availability of equivalent or duplicate forms.

The degree to which our test procedure agrees with good practice may be judged from this description.

Analysis of Test Results

A test is only as good, for diagnostic or selective purposes, as the individual questions of which it is composed. For this reason the results of each question were scrutinized to see how many of the individuals in the four groups, (i. e., novices, apprentices, journeymen and experts) were able to answer it correctly. If a question was answered correctly only by experts it was assumed to be a valid item, and when combined with a large number of items so obtained may be used to select experts.

Generally speaking, if a trade test is a good or valid test a known expert when tested is able to answer all or nearly all the questions correctly; a journeyman is able to answer the majority; an apprentice a small part, and a novice, none. This, of course, is an ideal condition, and we find few questions that meet all the requirements of gradual increase in difficulty as we pass from novice to expert levels.

Gradual increase in difficulty from step to step is illustrated graphically in Figure 1 by a method similar to that used in developing the Army Trade Tests*.

Stages of trade ability (novice, apprentice, journeyman, expert) are shown on the abscissa. These distances, statistically speaking, imply equal increments in total trade ability from class to class, which is of course only theoretically true. The ordinate axis from 0 to 100 denotes the percentage of questions answered correctly in each class.

The ideal question would be represented by a straight line plotted through points (N and O), (E and 100).

(Samples of good and bad questions will be thrown on the screen, Charts I and II).

The question in the test that approach the ideal curve are noted with an aterisk. When the test is used for selecting experts as reported by employers starred items should be used. When testing achievement or all round ability use all the questions.

The number of cases on which these premilinary results are based: 20 novices, 27 apprentices, 26 journeymen and 17 experts, 90 in all.

So a check on the reliability of the test, the scores of the odd questions were correlated with the scores of the even questions with an r of 89.

SUMMARY

In the first part of the paper a description was given of the cooperative program at Pittsburgh for the selection of candidates for vocational teacher training classes, sponsored by the Pennsylvania State Education Association. The devices used were: Mental ability tests, oral and written English tests, a space relations test, vocational interest analysis, personal history record, personal interviews and trade tests. A description of one section of the automobile test was given in Part II showing the method of test construction and standardization used in the research project. The task of preparing adequate reliable achievement tests in vocational fields is one of immense proportions and under the present method of production must necessarily be slow. But as a professional group we should be satisfied with nothing short of the best that money and the best available techniques can supply.

*Ruch, G. M., "The Objective of New-Type Examination", Scott, Foresman and Co., Chicago, Atlanta, New York, 1929.

*Chapman, J. G., Trade Tests, Henry Holt and Co., New York, pp. 103.

Training Evening-School Teachers

BEN E. HARRIS
Itinerant Teacher Trainer and Assistant State Supervisor of Trade and Industrial Education
University of Alabama, University, Ala.

I am assuming that you do not care for any amount of theorizing in connection with the subject that you have assigned to me, but rather that I tell you as quickly as possible what we are attempting to do in connection with our Evening School Program, and perhaps some of the results.

We are told that government by injunction is a dangerous thing, but we in Alabama do our first steps in teacher training, particularly for the isolated night school teachers, by following two injunctions laid down by Dr. Charles R. (Skipper) Allen,—"Choose the best tradesman that you can find who seems to have the qualifications for teaching,"—And again—"If you find that the man selected has real native ability for teaching, for Heaven's sake, do not ruin him by putting him through a Formal Teacher Training Course". The reason for following the first suggestion of the "Skipper" is clear to us all, but sometimes we are given to think that formal teacher training must be given to all our teachers. We find that for the isolated evening school teacher particularly, the shorter more direct method of reaching him is better. This together with the fact that there are so many such teachers and centers to be visited, has induced us to cut down our requirements to the minimum. I do not mean to intimate that we are neglecting the teacher in any way, but we are endeavoring to give him only such things as we think will be of service to him in his immediate teaching job, hoping, of course, that we may, if he continues in the work, find time to give him other instruction which may not be particularly necessary for the job that he is doing at present, but which would certainly enlarge his grasp of the situation.

Our first step is to give the teacher a brief outline of what the Smith-Hughes Act is and the need for it, following this with a short study of the State Plan, particularly that part of it applying to Trade and Industrial Education. With no teacher have I spent more than four hours on this subject. One big reason for presenting this is to get the teacher out of the atmosphere of being isolated.

By the time we get through this brief summary, he catches the idea that he is not alone in the work, that his class is just one part of a big scheme of education being fostered by the State and Federal Governments, and serves as an incentive to him and his group to want to make the class rate as well, if not better, than any other group in the same line of work; in other words, we hope to appeal to the pride of both the teacher and his group.

From this point on, the work is conducted more on a conference basis. Since the training of teachers not already employed is incidental to the training of the teacher who already has his group established and has some idea of what he is expected to do, we can use this method to good advantage. We first take up with him, or them, the qualifications of a trade instructor, both shop and related. Usually through the guidance of the teacher trainer, he will suggest and develop, although not always in the same order, the qualifications, that we consider as ideal. It is a very easy matter to go from these qualifications to a discussion of methods and means of instruction. Since the majority of our teachers have in some way had supervisory duties in the plant, it is also an easy matter to tie up the reason for having some method of instructing the students coming under his direction in the Night School.

At this point we try to bring out the necessity for knowing what one is trying to do, before attempting to do it. This leads to a discussion of what should be taught in the night class, and the teacher, of his own accord will start an analysis of his job, in his own way. It is not hard to switch him into a logical analysis—Not a trade analysis but job analysis—classifying the information which the teacher is trying to get over to the class.

In following this talk please keep in mind that the men in these teacher training classes are not prospective teachers, but are already teaching and want something that will help them now—perhaps the night after the teacher trainer has been with him or them.

From here we go immediately into the mechanics of teaching, usually taking up the different steps in the instructing process, using the conference method of developing the steps because application may be drawn from the shop, or other experiences, of the teacher or teachers. The possible means of carrying out these steps are discussed, using whenever possible, the experiences of the teacher to develop and put over the subject under discussion.

The subject of Questioning is given considerable attention as we find that the average teacher who has had little experience in teaching is prone to ask short snappy questions which do not provoke a great deal of thought on the part of the person questioned—We still have as one of our objectives in our night schools "The Teaching of the student to think."

Lesson planning comes in for its share of attention, not that we hope, or desire, to have our evening school teachers plan each lesson on printed lesson plan forms, but to develop and establish the habit of planning, mentally at least, what one hopes to put over in the time given to a class meeting.

Practice teaching as such is not mapped out to fit into any particular place in the program. In a small group, where everyone knows the other fellow intimately, I have stopped in the middle of a period surrendered the crayon and eraser to a member of the class and let him put over to the other some point which has been brought up and with which he is familiar, and had the group discuss his method of putting it over when completed. I believe good practice teaching can be done whenever and wherever the opportunity presents itself. We do, of course, if we have the time, try to have each member of the class present some well organized subject to the group, but most of the men are already teaching and the teacher trainer has the opportunity of sitting in the teacher's regular classes, and discussing the procedure with him after class.

Some of what might be called General Instructional Management such as

A. Organization of the class.
   1. Room and equipment.
   2. Student equipment.

B. Grouping of members according to academic attainment, to trade attainments.

C. Keeping up interest in work.

D. Determining need for individua help to students is given careful consideration, as it must be remembered that the isolated teacher, does not always, have the benefit of referring such matters to his local school Superintendent as the Superintendent may not live in the immediate locality in which the class is being conducted and the teacher is busily engaged at his regular employment during the day.

I have endeavored to tell you in fifteen minutes what it is taking us fifteen to eighteen hours to put over to the teachers, using a period of one and a half hours each week. As to results, I cannot help but believe that when an academic School Superintendent "sits through" the first meeting "to give encouragement" to the men and has not missed a meeting since because he says "it's good stuff" we must be getting somewhere. He did not come with the attitude of one who "came to scoff and remained to pray" but we are consoled by the fact that he remained.

The Training of Industrial Arts Teachers

By Ammon Swope
Associate Professor of Industrial Education, Purdue University

A new impetus has been added to the teacher-training program in the city of Indianapolis by the work of Mr. Harry E. Wood, Director of Vocational Education, and his associates. In short, the plan consists in a scheme of developing certain teaching material and techniques of workmanship in a laboratory which has been set up for this purpose to which teachers may be invited in regular assembly or as individuals for study of their own problems. To get at the origin of the idea let us go back a short period of time.

The teaching of Industrial Arts in this country is in a state of flux. The problems of half a hundred manual arts teachers in the city of Indianapolis are not much different than in any other cosmopolitan city in this country. There is always the problem of keeping the teacher from sinking into a lethargic state. From time to time various professional courses have been offered in these cities for which teachers have received credit at some university. These courses have been valuable but there comes a time when a service for credit is of necessity completed for certain teachers. The real teacher-training in service often turns about the actual class room problems of the day and so in Indianapolis a situation arose.

The idea may be expressed in the following conversation after a query on the part of the director as to why a teacher was not using more color in certain phases of his work. Teacher: "No, my boys are not interested in color". Harry E. Wood: "Have your pupils seen you use color"? The conversation might be continued here but it is not necessary. Any one who knows the director of vocational education for the city of Indianapolis knows the reason for the question of work being done in color. But this suggested a whole train of ideas. Teachers are not interested many times in what they have not seen or have not heard about. How can the problem be solved?

The experimental laboratory seems to be the answer at the present time. Teachers' meetings are a regular occurrence. The writer has sat in these teacher's meetings and has heard some very interesting and stimulating discussions which one would think would have encouraged every teacher to go back and try the suggestions. While many do, others forget immediately. Now the teachers' meetings are held in the laboratory.

In the old Benjamin Harrison school, after one has wended his way to the third floor, he finds a large upper room given over to the labratory. One end of the room is fitted with chairs to accommodate the teachers, the other has in it laboratory shop equipment. Here at odd hours the director and his associates and an occasional teacher who may be interested in developing some line of work may go to plan new things to stimulate the work of other teachers. If the old adage, "seeing is believing" has any truth it certainly has force in this situation. Here one may find at certain times a piece being developed for display in the use of applied ornament or the development of a fine curve on an original piece of furniture, then again, the interest of teachers and students is taken care of in this modern era by the development of a consistent modernistic piece. Even our old friend the taboret has succumbed to this tendency. Here a teacher may find it developed at its best.

The manual arts subjects are no longer woodworking but one finds projects being developed which combine the materials of the day. Here is a set of concrete bookends finished in gesso very artistically done in color. Here is a modernistic lamp, a combined project in wood, metal, glass, and paint finished in the most adaptable way.

No longer may the teacher lay claim to the fact that he has no opportunity to place before his class certain of the newer innovations in the manual arts. He cannot lay claim to being too busy for there is developed for him and with him as a part of his regular teacher-training program the projects that he will need.

The work is made possible through the use of light portable equipment and material such as can be used in any small shop. In fact materials and equipment may be tried out in this experimental room through the development of the projects. Each teacher may thereby have the opportunity to make constructive criticism in the material and equipment selected.

Viewing this experiment from the outside one would not hesitate to recommend to any director the possibilities of inspiring his teachers through work that has been carefully developed. It is interesting to observe in this situation that one of the outcomes of this venture has been the stimulating of the contest idea among his teachers and already one can note the influence of the laboratory. But that story may be told in another issue.

A Recent Survey of Printing Education

Continued from Page 15

tered employment after having spent from a few months to two years in the school. Those who make good are generally the ones who leave for economic reasons.

The Scientific Approach

Printing Education seems to be well established on a firm basis. Much attention has been given to the scientific study of the needs of this field of work. No one has attempted to turn out more apprentices than can be absorbed in the industry. As a matter of fact, safeguards have been set up against such a possibility. I believe that all cities referred to in this report are proceeding with due caution in the right direction. It has been interesting to study the present situation from the standpoint of the number of journeymen and apprentices employed, and their relation to the number of students enrolled in our schools. These figures may not be wholly reliable, but it seems to me that they may well be taken into consideration by any city establishing or adjusting a program of Printing Education.

According to the census reports of 1920, we find that the number of printers-compositors and pressmen—varies from 892 in Denver to 2108 in Baltimore. I was surprised to learn that there are more printers in Baltimore than in any other city included in this group, but our local industry is not only diversified, but is one of our very important ones. The apprentices in this particular trade vary from 53 in Los Angeles to 191 in Baltimore. The percentage of apprentices to journeymen varies from 4 to 11%, the average being 9%. This seems to be one basis, therefore, on which we might determine the needs of the industry. Again, from another angle, I find that the percentage of students enrolled to employed printers in these cities, varies from 4 to 15%, or an average of 9%. Comparing the 50 to 200%, or an average of about 100%. It seems, therefore, that our school enrollment might well be about the size of the number of apprentices employed in a particular city.

The Value of the Survey

The figures presented in the above paragraph may be very theoretical, but it has been my experience that they have been very helpful in the development of a program of Printing Education. The survey in every respect was worthwhile to us in many ways. We were able to check our program against programs in other cities and as a result were reassured of the soundness and validity of our own program.

Part-time Education

By J. HENRY HOLLOWAY
Principal, Central Printing Trades Continuation School, New York City

With the development of the science of education from attempts to solve its first problems by crude experiments, hit-and-miss methods, and theories not founded on established facts, to the present procedure along lines of organized knowledge constituting a new science, leaders in each successive period have received as heritage to be used for further advancement, the cumulated knowledge of their predecessors. Every new scheme of education has been the result of what has gone before, plus the contribution peculiar to its own type and time. Elementary schools, kindergarten, high schools—later to be classified under several types—and vocational schools, have been inducted into the educational program as time progresses. As each school has developed, its peculiar problems have been grappled with, and, after a struggle for existence it has become an accepted institution.

The Part-Time School Is the Latest Development in Educational Evolution

The evolution of educational systems has not yet finished its course. While the Senior High School is now deemed indispensable, its place in the educational scheme was achieved only after strenuous contest. The Junior High School has withstood the storms of opposition which until yesterday beat against it. In the process of educational evolution the vocational school has also been given, in its turn, a place of increasing prominence in the types of schools generally believed to be necessary. The next logical step in progress was the recognition of the rights possessed by the working child and the providing of opportunities for his further education. This has been the most important educational development of the past decade.

Whether the moment has arrived in which we may say that the latest phase of vocational education—the part-time school, is yet struggling for existence or whether it too has survived initiation rites and is now to be recognized as a new member in the educational fraternity is uncertain. Nor is the affirmative or the negative answer to the question of great importance. The fact remains that the opposition has weakened and a new type of education has been instituted to serve in adjusting the young worker to his environment and in aiding him to modify that environment so as to effect in him complete and worth-while living in an increasingly complex society.

Like every member in this fraternity the part-time school has had to fight its way and has become stronger through the struggle for its very existence. Vocational education including particularly the part-time or continuation school phase, has had its peculiar problems to solve. Other types of schools with aims, ideals and conditions similar in some respects to those of vocational schools, have had many factors that have been new and have required special attention for securing solution by new methods.

What have been the most prominent problems bearing upon this new type of education?

Training for Complete Living Is the Function of the Part-Time School

No new scheme in education has survived that has not had its own distinctive purpose. The aims of general education have been defined in various terms, some of the more commonly accepted of which have been the utilitarian, adjustment, aesthetic, character, ethical, social, and civic. To achieve one or more of the ideals set up, emphasis has been placed on the kind of school organized to effect the objective. So with the establishment of part-time schools. The aim has been to give the working minor an opportunity under guidance to adjust himself in society as a thrifty, useful, productive citizen, of good character and highest ideals as accepted in the society of which he is a member. Vocational schools of various kinds were considered well qualified to attain the standards set up.

In part-time schools giving vocational instruction, the aims were considered possible of accomplishment by providing adjustment to present environment and by a preparation for adult life. The process consisted in supplying educational and vocational guidance, in securing forward-moving employment, in vocational and civic training for life occupation and in extension training for those already placed in their chosen vocation. These aims now so universally accepted were not established without abundant opposition, nor were they formulated without controversy. The very formulation of the aim was one of the first problems of the leaders in vocational education and the charge was often made by opponents that the new (continuation) schools had no definite objectives.

Selfish Interests Delay the Solution of Important Problems

The next problem was one of organization. What size school? What student body, what size of class? While the part-time schools were to give instruction to working boys and girls, what were to be the age limits, the attendance requirements, the physical and educational qualifications? What exemptions? What hours for attendance? Should attendance be voluntary or compulsory? Should the State or the local community exercise authority of laying down the necessary compulsory regulations? Wherein should be vested the enforcement power and obligation? Should night schools be allowed as the alternative of the day part-time school?

All these questions involve problems which had to be solved before the schools could become securely established. Even now there is no unanimity of opinion regarding the answers to some of these questions. Educational authority expresses judgment; legislatures listen and act; employers accept or reject a solution in terms of their inclination toward or away from selfish motives; and the same may be said of parents. Additional problems therefore, are presented when an attempt is made to sell the idea of this new type of education to teachers and even to some superintendents, who fail to understand what it is all about and put forth no effort to find out. Other problems arise when matters affecting the advancement of the new system are offered for the consideration and the support of legislators, employers, or parents. The problems multiply when any one of these groups is considered. Nor are the problems the same for any two of the groups.

The type of building for housing the part-time school suggests a problem of prime importance, the solution of which determines the answer to those other problems indicated in the preceding paragraph. When the young worker leaves a beautiful, modern, elementary, junior or senior high school to seek employment and consequently to attend a part-time school for four hours a week, how can we expect him to enthuse over his new educational contact when it is made in a dingy, dangerous, delapidated building too ancient for further service as a full-time school? Nor can any one community alone be charged with neglect to provide proper housing conditions for its part-time schools. Have not the results been remarkable when solutions have been found notwithstanding distracting factors of such magnitude?

Part-Time Education Has Offered Opportunity for Pioneer Work

The problems that the administrator of part-time schools must grapple with are similar to those of the pioneer. For the peculiar problems of continuation education, he has had until the present neither guide nor precedent. He has had to blaze the trail and open the way. He has had to select as his instructors in trade education craftsmen without training in teaching, or teachers without trade experience. He has been compelled to accept tradesmen willing to teach for compensation less than the wage scale of their trade, with the

result that his faculty has been made up of excellent teachers of the self-sacrificing type, together with instructors who have failed in their vocational careers.

The administrator has had to take this material which possessed possibilities but which at the time was but partly equipped at best. Difficulties complicating the problems resulted, for in this poorly prepared teaching staff must be found the curriculum makers to prepare courses for a new type of instruction in a new field of education. The whole subject of curriculum making for vocational instruction is replete with its own problems.

Lacking technique of class administration and training in constructive disciplinary methods, the administrator's troubles have been multiplied by the addition of the problem of discipline along with those related problems of punctuality and attendance. Nor has the matter of attendance been easily handled. The immensity of the task imposed in gathering in thousands of minors who were already beyond the control of the school and were scattered in employment in every district, presented a job of great difficulty. Some employed minors were in school and others were out who should have been in. The result was consequent dissatisfaction and a charge of discrimination and injustice.

The Formulation of a New Methodology Is But One of Many Problems

A new problem was presented for this new type of school in the matter of registration and discharge. It was apparent that the old method of mass instruction could not obtain, nor was the newer plan of group teaching applicable for the reason that the register of any class would be in state of continual change. Because pupils were to enter school when they received their work certificates and were to be discharged when they reached the age of seventeen, the turnover in class registers was continuous and of unprecedented magnitude. Hence was necessarily evolved the individual instruction method.

This constituted the problems inherent in formulating a new methodology and the consequent tasks connected with the preparation of individual job instruction sheets. Still another problem was the development of the system of related work instruction.

Still other problems grew out of these: for example, the manner of keeping the pupils' work so as to be most economically collected, cared for, and distributed session by session. Rating of pupils' work, records of progress, correction of work for 120-135 pupils who were present but four hours each week, constituted additional difficulties. How was the teacher to get an opportunity to correct the work in such way, if at all, that the correction could be of value to the pupil? What use was to be made of ratings?

The problem of coordination was of major importance involving such considerations as the following: Is every teacher qualified to visit employers and parents? What of the teacher's personality and appearance? Can every teacher be trusted to visit? What visits should be made? Why? What records of visits? What follow-up after the visit has been made? How prevent duplication of visits by other teachers in the interests of other boys employed by same firm or duplication of visits by a second teacher of the same pupil?

The problem of securing adequate equipment was important. On one hand the Board of Education could not be expected to adequately equip many schools organized within a short period of time. On the other hand to give instruction of value, equipment must be available. Problem—how meet these two conditions? The solution has been found in securing cooperation of organized labor, employer groups and manufacturers who have supplied equipment without expense to the educational authority.

A problem of importance is that of forming cooperating committees to aid in administering and supervising and to help in securing equipment. The school has taken a step in solving its problems when a cordial entente is established with trade publications and especially those of local scope and influence.

Under adjustment problems of the pupils, which problems must be of ever-present concern to the administrator, are those involving thrift and profitable use of leisure time. Improving home conditions and relations must be accepted as real school problems. How to secure these adjustments to the best interest of the boys and girls is a major problem in administration, and of moment to the welfare of society and the commonwealth.

Grading of pupils is difficult because of the limited time the pupil is in the school, because of the time given to try-out work, because of the insufficient number of classes in some subjects, and because of incomplete data brought with the pupil as he enters continuation school. The matter of clerical work presents a problem when the teacher's previous training and trade experience have not required the formation of habits of accuracy in making records and reports. For most part this work of keeping school records is new to the teachers and therefore subject to frequent error. Nor do these instructors feel the need of accuracy.

The matter of transfers to and from general and central continuation schools presents a new problem requiring serious consideration. The success of the central school as the part-time agency for trade preparation and trade extension instruction for pre-apprentice, depends upon the mutual co-operative relation between these two grades of part-time school.

Will the Central Continuation School Be Able to Bridge the Gap Between Pre-Apprenticeship and Apprenticeship?

A very important problem peculiar to the central school is that of bridging the gap between pre-apprenticeship and apprenticeship. Progress in any industry will be greatly enhanced when the employer looks to the product of the continuation school for future apprentices.

This very desirable end will be achieved when industry finds in the part-time school a preparation of young workers for more promising apprenticeship material in-the-making than can be found elsewhere.

The administrator of the Central Continuation School will prove this one of his problems well solved when employers call on the school alone for lads with whom to fill vacancies in the ranks. Boys who are to be remembered for apprentice registration will be those who have had pre-apprentice training. In fact the solution of this problem may be difficult, not because the employer fails to recognize the good work of the school, or because the school fails to measure up to the standards set for the central school, but rather because the demand of the employers is in excess of the supply available.

One of the most encouraging signs of progress is found in the fact that to a rapidly increasing extent, employers are depending upon the part-time school, especially the central school, to prepare and furnish pre-apprentice boys as material for apprenticeship. In this regard the Employing Printers have shown the way and with mutually advantageous and satisfactory results.

Cooperating Committees Help the Administrator to Solve His Problems

The organization of cooperating committees composed of representatives from employer and labor groups has been found of indispensable service as an aid in supervision, administration, supplementary financing, and in many other ways without which a school could not hope to attain a like measure of success. Fortunate indeed the administrator whose interests are those of such committees and whose problems are tackled not in the long hours of solitary struggle but rather by the united effort of every member assembled for the one purpose of perfecting solutions and situations.

Continued on Page 39

Project Accounting

Continued from Page 21

sacrificed. Highly desirable as simplicity is, it can be carried to such an extreme that numerous difficulties arise when an attempt is made to actually use the records.

Thus far we have discussed the characteristics of satisfactory records mainly from the standpoint of the record itself without regard to the human factor. The description would be incomplete if the statement were not emphasized that whatever the exact form or content of the record may be, it is not satisfactory from the standpoint of good teaching unless the pupil is interested in the record, understands why and how he keeps it, and actually uses the record as he keeps it. How to accomplish this belongs properly to the discussion by the next speaker. To indicate, however, that the characteristics mentioned lie within the limits of practicability may we say that instances are growing more numerous in which pupils *are* using their records during the course of the project to gauge their progress and indicate necessary modifications of plans; in which pupils *are* comparing their accomplishments with those of other pupils and of adult farmers as a basis for improvement for their whole supervised practice program, and in which pupils *are* demonstrating that there is a direct relationship between superior practices and economical production or efficiency.

In summarization, may we say that:

1. The most significant use of project records is in interpreting how successful the pupil has been in the conduct of his project and in explaining the reasons for the degree of success attained.
2. Records satisfactory for this purpose will ordinarily be satisfactory for other important and common purposes, because of the comprehensiveness needed for this purpose.
3. The characteristics of accuracy, completeness sufficient to make possible an analysis of the efficiency factors, and simplicity, so far as is consistent with completeness, are essential.
4. A truly satisfactory record must not only possess the above characteristics, but it must also be a record *kept intelligently* and *used intelligently by the pupil*.
5. As actually demonstrated in case after case, all of these characteristics, including the last, are capable of attainment provided teachers really believe that records are valuable as an aid to teaching. Only those records which possess these characteristics are entitled to be considered satisfactory.

Part-time Education

Continued from Page 38

Nor, when the committees have been well selected and are composed of leaders of vision, need there be fear. It is true that different groups are not always friendly and that within organizations petty jealousies may be found. These need not touch the school nor its work.

The administrator's problem is to steer an even course, to play no favorites, to take no sides, to have in mind only the good of the school and the accomplishment of its aims and objectives.

Other Problems Are Presented by Part-Time Education

These are problems that supervisor and administrator of part-time education must be prepared to meet and solve with all diligence and with such aids as may be available. Emphasis has been placed on the needs of the pre-apprentice group coming under the school's influence and instruction. Mention only has been made of that newest development of the public part-time or continuation school,—apprentice and journeyman training. The reason has been not because this most recent aspect is not important, but rather because it is so significant as a new step in educational evolution that separate attention should be given it as a subject presenting its own peculiar problems.

It is already safe to predict that some incidents significant in the struggle for existence of other types of public schools will be missing for the reason that the printing industry cooperating with the Board of Education (New York City) has for four years been establishing precedent and laying down a procedure which has been found adequate, progressive and successful.

In the solution of the problems as presented to the administrator of part-time education are found a satisfaction of aims and a permanent contribution to educational progress generally. Specifically, instruction functions in learning while learning, in turn, finds its reward in happy and profitable employment and in valuable use of leisure time. Thus the young worker in the community becomes a useful, contented and respected member of society, making, as a good citizen, his contribution to social and industrial progress.

BECOME
A LIFE
MEMBER

Apprentice Training in the Cut Stone Industry

Continued from Page 32

needs of the stone industry in general and the individual himself as well as ourselves.

I say "as well as ourselves" because despite the highly specialized character of the production in our own plant, we are face to face with an increasing demand in our own plant for the all around workman who, in emergencies and at all other times, can do any piece of work that our plant may be called upon to produce.

In this matter we regard ourselves as being in the educational work. What we teach a man is not the leisure-class conception but we do teach him a focalized activity that will increase his efficiency, his earning power, and therefor make him a happier, more useful man. I feel that what we are doing for the boys will mean the difference between a meager existence on the one hand and an earning power that will give them the comforts of life on the other.

Moreover we feel that we are meeting a public need. The finished stone industry is every year becoming more and more exacting in the demands made on the workman. The public is demanding a class of work that is becoming more and more difficult for the average workman to meet. The degree of skill now required is such that a finished workman can only be turned out after considerable apprenticeship. But not only has the public raised its demands, but modern machinery is doing today a great deal of the ordinary work that was once done by the ordinary workman. The result is that it is more and more true that there is only highly skilled work left to be done by hand.

The stone industry has reached the point where it is compelled to find more skilled workmen and the most direct way to accomplish this is to train them. There is a great shortage of such men. In the course of a year we receive scores of letters from retail dealers who are asking for high class men to do the work of the retail shop. If our venture in vocational training enables us to increase the number of skilled men to the point that we can help supply this demand, we will thereby have helped the retail trade everywhere, we will have helped the boys we trained, we will have added to the number of skilled craftsmen in the state and the United States and thereby to that extent helped the cause of good citizenship.

BOOK REVIEWS

PUBLIC SCHOOLS AND THE WORKER IN NEW YORK.—A survey by the National Industrial Conference Board—$1.50.

This publication contains a very complete and interesting compilation of the facts regarding the training opportunities and conditions in the state.

It is shown that the public schools through general continuation schools, cooperative schools, unit trade schools and evening schools are providing a very comprehensive educational program for the young worker. The limiting of the continuation school to cities of 20,000 or above does not provide training facilities for those in small cities, but an attempt has been made to remedy this by providing for county schools where needed. Many private school agencies are contributing to the training program in a very effective way.

* * * *

A PICTURE TOUR THROUGH TRADE SCHOOLS AND CLASSES IN THE UNITED STATES. — Compiled by Lawrence Parker, Kansas State Board for Vocational Education, Topeka.

This interesting and helpful booklet gives one an excellent idea of the extent and variety of trade school offerings in the United States. Sufficient descriptive matter is included so that the reader can get a comprehensive picture of the work in the various centers.

* * * *

ADULT EDUCATION —THE EVENING INDUSTRIAL SCHOOL, By Chas. A. Prosser and M. Reed Bass, The Century Company, 353 Fourth Ave., New York City—$2.75.

When we need a doctor to diagnose our physical ailments we much prefer one with experience. In addition to this experience we prefer some one who is recommended by several people.

The authors of this text are men of experience, they are widely known for their success in the field they are writing about. If we need advice on how to handle evening school work certainly we could go to no better authority. The book is carefully organized and is recommended for study to all persons who have anything to do with the evening school.

* * * *

Because this is a time of specialists, publishing houses specialize in producing books along special lines. One of the outstanding companies specializing in books for industrial schools is the D. Van Nostrand Company, New York.

The following books are all published by them and therefore can be recommended with safety:

RADIO—A study of First Principles—by E. E. Burns—$2.00. This is an elementary text now in its third printing. It deals with the principles of Radio and the various circuits which may be employed. The latter part of the text takes up radio mathematics.

THE ELEMENTS OF MACHINE DESIGN —by S. J. Berard and E. O. Waters—$2.50. This text is suitable for colleges and technical schools or for advanced work in evening school classes. The authors state that it is intended to fill the gap between Engineering Drawing and Advanced Machine Design. The book is carefully organized and well illustrated.

GENERAL METAL WORK—by Alfred B. Grayshon—$2.00. The book is intended for use in Junior High Schools and continuation schools. It deals for the most part with sheet metal, but takes up some projects in cold bent iron work and simple machine shop.

GENERAL SHOP MATHEMATICS — By Herbert D. Harper—$1.50. All too often people who try to write texts on this subject fail to make the connection between the exercises and the practical jobs where they apply. This is not true in this book and it can be recommended for beginners in vocational work or for mathematics in the Junior High School.

AUTOMOBILE SHOP MATHEMATICS—By Herbert D. Harper—$1.50. In the day trade school teachers of mathematics as a related subject for auto mechanics will do well to use this text. Anything that an auto mechanic needs to know is in this book. It is being used with great success in many schools.

* * * *

PATTERN MAKING By McCracken and Sampson,—D. Van Nostrand Company, New York.

In the field of pattern making very few texts have been written, therefore this new text is a valuable contribution. It is well illustrated and care is used to explain the whole process from the pattern to the foundry. The exercises are well-graded from the simple to the complex. In many cases the location of the pattern in the flask is illustrated. This helps the student to visualize the use of the pattern.

* * * *

HOW TO MAKE BLUE PRINTS—By W. W. Sturtevant, The Bruce Publishing Co.—$.84.

This little book describes carefully the complete process of making blueprints both with the hand frame and using the machine. The use of various kinds of paper is also described. This book will make an excellent addition to the library of the drafting room.

* * * *

SKETCHING FOR THE DRAFTSMAN—By H. W. Michelson and R. O. Buck, The Bruce Publishing Co., Milwaukee, Wis.—$.80.

This is a paper covered text of 112 pages that may be used in connection with a course in mechanical drawing or by itself for a course in shop sketching. There are fifty problems, each of which illustrates a principle of prospective. Real problems rathern than cubes and triangles are used.

* * * *

PROBLEMS IN METAL WORK—By John B. Butler, The Manual Arts Press, Peoria, Ill., $2.50.

This book is a well organized text in the field of sheet metal work. It contains a shop lay-out plan, a list of equipment projects suitable for practice work. The text is well illustrated and the problems have been well selected.

STATE-WIDE APPRENTICESHIP PLAN—The Associated Industries of New York State, Inc., 701-705 Iroquois Bldg., Buffalo, New York, have issued a State-Wide Apprenticeship Program for use by industries in that state.

In this plan the details of the training program for training machine shop apprentices are given. The length of the training program, the wage scale, the distribution of the training jobs and the forms of indenture and records are given as are the outlines for related subjects work to be given by the schools for at least four hours per week for thirty-six weeks per year.

PICTORIAL DRAFTING—By John H. Hills, McGraw-Hill Book Company, $1.50.

This is a small well-organized text which takes up pictorial drawing from the mechanical side. The book is organized in a step method that will lead the student from the simple to the complex. The book is primarily for industrial arts work in high school, but may be used in vocational and evening classes to good advantage.

* * * *

THE ART OF BLOCK CUTTING—By O. A. Haukammer and F. C. Lampe, F. C. Lampe Publishing Co., 4840-4842 West Chicago Ave., Chicago, Ill., $4.75.

This is an excellent text on the art of linoleum block cutting for printing. The work is very well illustrated and the various samples of blocks show artistic treatment.—*George K. Wells.*

* * * *

INTERIOR ELECTRIC WIRING AND ESTIMATING—By A. L. Nelson and C. H. Dunlap. American Technical Society, Chicago. 255 pages.

This book is a splendid contribution on the practical side of the subject. It is an up to the minute non-technical discussion on such subjects as bells, alarm and signal systems and wiring methods. Types of building installations are discussed at length.

Numerous illustrations including line drawings and photographs are given with each topic throughout the book. They are developed in such a way that they may be adapted with little effort to shop instruction.

The last section is devoted to estimating and contains all necessary tables and explanations.

Vocational and general shop teachers will find this a valuable addition to the field.

* * * *

VOCATIONAL MATHEMATICS—By E. M. Starr and E. G. Olds. P. Blakiston's Son and Co., Inc., Philadelphia. 184 pages. Price $1.25.

The book is divided into two parts. The first part is a review of the fundamental processes of arithmetic through ratio and proportion. The second part is an application of the fundamentals to trade practice. Simple geometric and trigonometric solutions are discussed as well as logarithmic computation. A short chapter on graphic representation is offered.

Numerous exercises are presented for practice following each topic. The illustrations given are well adapted to the theory.

This should be a good book for adult classes in trade mathematics.

BLUE PRINT READING—By J. R. Dalzell, James McKinney and Herman Ritow, American Technical Society, Chicago, 197 pages, 50 plans and illustrations. Price $1.25.

Blue Print Reading was written for use in the building trades. It is a clear discussion from the tradesman viewpoint of the subject. One finds in the table of contents such subjects as making the blueprint, conventions, sections, specifications and plan reading.

A folded insert of complete plans and elevations of an apartment are given for reading practice.

The book should be useful in evening school and apprentice classes. Vocational teachers in the building trades will find it an authentic guide.

* * * *

ELEMENTARY LABORATORY AERODYNAMICS—By Jordan.

I have examined this book with much interest. It seems to me that the Ronald Press has scored again in presenting this addition to its list of books on aeronautics. We are in need of just such material as this to motivate our present course in high school physics. A high school teacher of physics who feels unfamiliar with the rapidly developing field of aeronautics should be inspired with confidence to undertake more work of this nature in his teaching. I am pleased to have the opportunity to recommend this book to teachers in the service.—*Ammon Swope.*

* * * *

The announcement that PAPER TOYS No. 2, by Anna Pauli, is just off the press, will be good news to everyone who has seen Book No. 1.

Upon examination you will note that the book tells how to construct from inexpensive construction paper, *three-dimension* toys that will *stand alone.* These toys are more life-like than most toys made of paper. They will engage the enthusiastic interest of children from 8 to 12 years of age. The book also encourages the creative and imaginative abilities of the child. Teachers will find it rich in suggestive helps for keeping pupils profitably and busily engaged during the difficult spring days just ahead. Mothers who will take the time to work with the child will be amply repaid in seeing the gradual development of their child's power. Manual Arts Press, Publishers. Price $1.40.

* * * *

TEACHING FARM SHOP AND FARM MECHANICS, by Professor Schmidt of Colorado Agricultural College, Mr. Ross, former State Supervisor of Agricultural Education for Wyoming, and Professor Sharp of Iowa State College, (published 1927) is intended to help men prepare to teach vocational agriculture and to meet their specific needs concerning farm shop and other farm mechanics work. It is the first book devoted exclusively to the field of farm mechanics. It follows the project method quite largely and aims to lead the future inspector to make his teaching of farm mechanics conform to the new philosophy of education.

This textbook is a number of The Century Vocational Series, edited by Dr. Charles A. Prosser, Director of Dunwoody Institute, and therefore deserves, we believe, careful consideration with a view to classroom use by all teachers of the subject. Its price is $2.75, with the usual discount granted when ordered by schools, teachers or dealers.

* * * *

FITTING FARM TOOLS—By Louis M. Roehl—$1.00. Published by Bruce Publishing Company, Milwaukee, Wis.

The object of this book is to assist both the agricultural student and the farmer in knowing how to equip his shop and how to do such jobs as grinding and sharpening cutting tools, fitting tool handles and forging simple steel tools.

Such a book should be helpful to teachers of vocational agriculture in stimulating both their all-day and evening school pupils in this important phase of the farm business.

* * * *

HOME NURSING AND CHILD CARE—By C. E. Turner, M. A., Ph. D., Professor of Biology and Public Health, Massachusetts Institute of Technology; Nell Josephine Morgan, R. N., Instructor in Home Nursing, Junior High Schools, Malden, Mass.; Georgie B. Collins, Director of Health Education, Malden, Mass. Published by D. C. Heath & Company, 1930.

Out of their store of experience and teaching knowledge, these authors have written an interesting text book on home nursing and child care that meets the needs of the late junior high schools and early senior high school levels. The outstanding features of this book are the arrangement of the text, the development of the subject and the emphasis placed upon practical application. The problematic questions at the beginning of each chapter and also those throughout the chapters tend to motivate the reader to further study. It is a usable and practical text book on this subject.—*Emma Baie.*

LONG JOHN SILVER TEMPTS THE SHIP

A wild tale of a ghostly idea that failed to click with the Crew

It's May, the Ship wishes it could creep into dry dock and spend the summer quietly listening to the barnacles dropping from her hull, and with sails reefed, dream about visiting good ole Lake Mich' next December.

Down in the cabin, after the day's work, the Crew are squatted about on their brief cases, reading letters from the "home office". It is visitors' night and guests will soon be arriving to inspect quarters, for all the world like parent teachers' association going into action. Down the companionway, dimly lighted by the swinging lantern, comes the lanky figure of Old John Silver, his wide brimmed black hat pulled low over his patched eye.

Carefully unstrapping from his shoulders two small boxes, he sets them down gingerly on the galley table. Wiping his brow on his sleeve, he fixes his fishy eyes on the Crew.

"Tars," he says, "without invitation I come here tonight with an astonishing message. Before I drop away you will realize that in these boxes are the cleverest fixtures of sales science, too involved for the brain of a Steinmetz, but ABC to the mind of Wun Sat Tite, the Oriental wizard.

"Last December Wun Sat Tite in a contemplative mood, tuned in on the business meeting of the Ship at New Orleans. Studying a perplexing problem of their sales records, brought forth this research aid, the Specification Visualizer.

"Since that time, I have visited and had the approval of the fifth vice-president of every company here represented. The V. P. endorsed the S. V. 101 1-7 percent. Let me show you how it operates."

Tossing aside his black hat, Old John turns back the lid of the first box and exposes what to all appearances is an onyx desk set, with one pen. The other box is opened and shows a map of United States with little white pin dots spread over its cities.

"Now let us see what this means," continues L. J. "The map is a miniature of the map mounted in the office of every fifth vice-president. You well know that to be in Thomas' Register any sizable company has to rate at least five vice-presidents. By questionnaire Wun Sat Tite's oriental engineers disclosed that the fifth V. P. is most ambitious to be the first V. P., but that is not essential to our discussion.

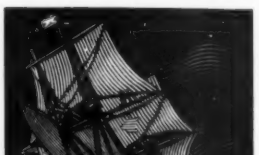
"This harmless desk set is radio sensitive, keyed thru the central neutrodyne of Wun Sat Tite. Surreptitiously these sets have been placed on the desks of all directors of vocational work."

"For example, suppose that the director in Davenport has just returned triumphant from a Board meeting. Naturally he can scarcely contain his zeal to order his gimlets, glue, and dowel pins.

"Seizing the convenient desk pen he writes,

One only gimlet, 5-inch, Pew or equal.

"Observe, Tars, I go thru the motions. Immediately the little buttons in fifth V. P. office ring. Glancing up



from Yachting, the fifth V. P. of Pew watches the map. The bulb at Davenport flashes once, and he makes one mark on chart S. Clever idea, eh? A dozen gimlets ring a bell, a gross blow coo-coo whistle and a crate sounds a siren in bedroom of Pew factory manager.

"Suppose, however, the specification were for gimlet not made by Ship member. First radio pen holds back ink and stutters. If director grabs another pen, Visualized pen rolls off desk, exploding helium gas bulb which photographs specifications, transferring it to bulletin board of fifth V. P. of Pew.

"Switching on television visor, V. P. locates his Ship member who lands his Curtiss Robin in five minutes on roof of Board of Education. In seven minutes startled director is looking down the barrel of a 1930 5-8 model of the non-collapsible, self-oiling and school-girl-complexioned Pew gimlet of indigestible steel.

Just then from under the grey wig slipped out the tell-tale pigtail and a broad grin disclosed the unpepsodent yellow of oriental teeth. It was, by the Ship's clock, none other than Wun Sat Tite, himself. the Chinese glue smuggler.

"Only brain like Wun Sat Tite's devise such clever sales help, all samee?"

The skipper winked at the first mate, the log officer flicked an eyelash and a few minutes later a low gurgle and three oily bubbles marked the Ship's ejection of Wun Sat Tite and Specification Visualized into the Delaware.

"Never as long as the Ship sails, and never as long as our school friends are such fine fellows,—are any such scientific pressure methods to be included in our program. High pressure! Excellent for fire hose but not in our scheme." so spoke the skipper.

"But suppose," interjected a new member, "that the director can buy a better tool material than is made by any Ship member."

"That is his privilege and our spur to keep in the lead." answered the first mate.

"But those desk sets!" The purser had been doing some rapid thinking.

"Let them be. The directors recognize what the Ship is doing, and appreciate the time and money these companies have devoted to the progress of vocational training. The specifications need not worry us. They will follow. The directors know that we are men of our word, that they can depend on the Crew's interest in their securing the equipment best suited for pupil use and misuse."

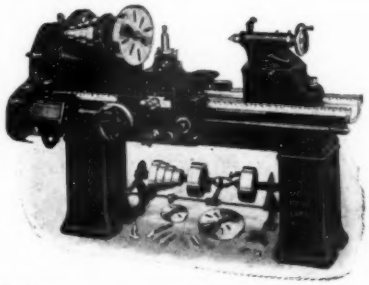
"Then let's forget Wun Sat Tite," all say in one voice.

Someone started the Crew lullaby, "Sailing, sale-ing, over the bounding Maine, Illinois, and California." Forgetting their open house plans, the Crew were soon in their hammocks and the official tucker was tying the night-caps. As one man they rocked into slumberland.

Good night, dear people. Have a real vacation. S-H-I-P signing off.

WALDO WRIGHT, *Captain.*

NEWS FROM THE TRADE



New Large Swing Lathe Is Announced

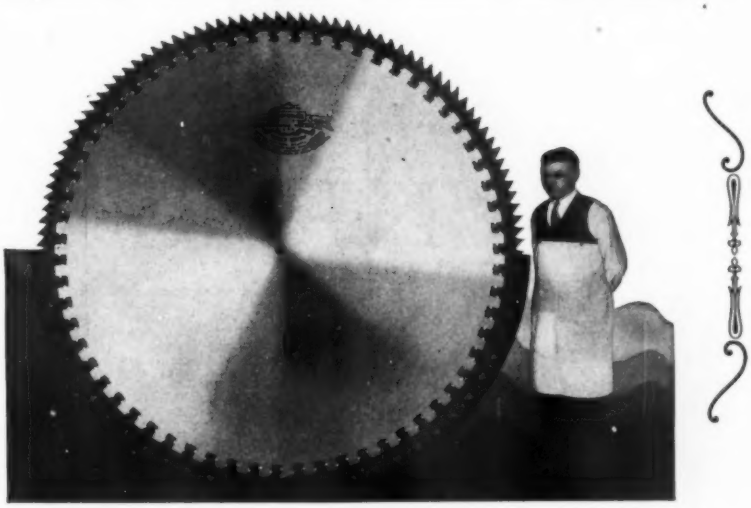
The 16-24-Inch New Model South Bend Large Swing Lathe illustrated above is designed for machining work of large diameter on which only light cuts are taken.

This lathe is a regular 16-inch lathe fitted with raising blocks to increase the swing from 16¼ inches to 24¼ inches over the bed. The raising blocks are firmly fitted under the headstock, tailstock and compound rest. It will be noted that the compound rest raising block is graduated on the base so that the tool can be fed to the work at any angle desired. It is fitted with automatic cross and longitudinal feeds and is especially built for the cutting of screw threads.

The Large Swing Lathe is made up to meet the requirements of a great many small plants which machine work of large diameter (light cuts), also for machine shops, repair shops, service stations and general all around machine work. By using a special form of turning tool a flywheel 24 inches in diameter can be machined on its face. A roll 16 inches in diameter can be machined between centers for its entire length as a roll of that size will swing over the saddle.

The 16-Inch Large Swing Lathe may be fitted with Lathe Chucks, Drill Chucks, and other attachments which make possible a great variety of work. It can also be supplied with countershaft drive or silent chain motor drive. It can be had in any length bed from six to twelve feet.

The features of the regular 16-Inch South Bend Lathe as described in the catalog No. 91-A, published by the South Bend Lathe Works, South Bend, Indiana, apply to the Large Swing Lathe.



The World's Largest Saw Made by Simonds

A circular saw 10 feet in diameter, made by the Simonds Saw and Steel Co. is in all probability the largest section tooth pattern cut-off saw in actual operation in the world. This inserted section cut-off saw is an exclusive design by Simonds and is being manufactured in the Portland, Oregon shop of this company, and is made to meet the demand for a strong, fast cutting saw that will withstand rough cutting conditions. At the plant this type is in constant operation.

The inserted section saw is used for cutting up logs, and is adapted for pulp and paper and lumber mills. Removable sections containing two teeth of hardened steel, are inserted and automatically locked in the plate. These tooth sections are interchangeable and may be renewed when necessary.

American Technical Society

CHICAGO, ILL.

"Because of the increased interest in the study of aviation engines in schools throughout the country, the American Technical Society is bringing out, on April 10th, a new book AVIATION ENGINES written by Ray F. Kuns, Principal of the Automotive Trades School, Cincinnati, Ohio. This book will be reasonably priced and will deal with the latest types of aviation engines strictly from the educational viewpoint. The book will be well illustrated, will contain about 230 pages, and will retail at $2.50.

Other recent new publications of the American Technical Society are as follows: A. C. RADIO GUIDE, BLUE-PRINT READING FOR THE BUILDING TRADES, ARMATURE WINDING, INTERIOR ELECTRIC WIRING, AUDITING, COST ACCOUNTING & OFFICE EQUIPMENT, and FOUNDRY WORK."

McGraw-Hill Book Co.

NEW YORK, N. Y.

The McGraw-Hill Book Company has the following books in press that

Continued on Page 45

MIDWEST TEACHERS BUREAU Secures High School and College positions for Vocational Teachers Coast to Coast

KANSAS CITY, KANSAS — SOUTH BEND, INDIANA

A State Summer School with a National Reputation
conducted by the New Jersey State Board of Education

Ocean City State Summer School

OCEAN CITY, NEW JERSEY

The 1930 Session starts June 30 and closes August 2, a period of five weeks, six days a week

PRINTING COURSES

Certificates Granted

College Credits Awarded

COURSES

Courses under the general head of Printing are as follows:

	Course Hours		Total	Credits
Principles and Practice Printing I	60	30	120	2
Teacher Training Printing II	45	45	90	3
Linoleum Block Printing III	30	30	60	1
**Professional Subjects*	60	30	120	4
	120	135	390	10

*A minimum of 120 hours' work in professional subjects, such as Psychology, Principles and History of Education, will be required. This work must be completed in two or three summers at Ocean City, unless credits are presented and accepted as evidence of equivalent previous preparation

Including Elementary Bookbinding and Linoleum Block Printing

PRINTING COURSES have been conducted in the Ocean City State Summer School since 1915. During that time students have been enrolled from nineteen states, including nearly all along the Atlantic Seaboard and as far west as Idaho and as far south as Alabama. So far as can be learned no state has ever refused to accept the certificates nor has any university failed to acknowledge the college credits awarded by the printing department of the Ocean City State Summer School.

As the major course in the Printing Department is a "Methods" Course, a large outfit is not necessary. No instruction in machine composition, cylinder or automatic presswork is furnished. The printing outfit corresponds to that usually installed in a junior high school.

TUITION RATE

Tuition rate for non-residents of New Jersey is $15 for each course. Residents of New Jersey or teachers engaged to teach in New Jersey schools are not required to pay any tuition charges.

ROOMS AND BOARD

A very low rate for room, including meals, has been arranged for the first twenty-five students enrolling in the Printing Courses. These students will be assigned to Pica Hall, located at 824 Plymouth Place, a beautiful residence, only a block from the school and about a half-block from the ocean and boardwalk.

Rates are as follows:

For three persons in a room, $10.00 per week.
For two persons in a room, $12.50 per week.
Single room, $15.00 per week.

The above rates include board.

As these rates are limited to the first twenty-five students registering for Printing Courses it is suggested that you enroll at once.

The Courses in Printing at the Ocean City State Summer School are under the personal direction of *Frank K. Phillips,* Manager of the *Education Department* of the *American Type Founders Company,* 300 Communipaw Avenue, Jersey City, N. J.

Dr. W. A. ACKERMAN, Director, New Jersey State Summer Schools
GEORGE E. HUCKINS, Teacher of Methods
MISS GRACE W. ENGELS, Supervisor of Practical Arts
MISS ALICE H. ENGELS, Teacher of Bookbinding and Linoleum Block Printing

News from the Trade

Continued from Page 43

they expect to have ready by May 1.
Morgan and Flick—CIVICS AND INDUSTRY.
Williams and Oberteuffer — INDUSTRIAL HYGIENE FOR SCHOOLS.
Wallace—COMMERCIAL ART.

The Morgan and Flick book is especially interesting. It is a civics text for vocational students. It brings out clearly the mutual obligations of the state and the citizen worker. The book grew out of the author's classes at the Arsenal Technical School, Indianapolis.

American Typefounders Co.

Mr. F. C. Lampe of the Education Department of the American Typefounders Company has resigned. Mr. Lampe was formerly in charge of the Education Department of Barnhart Brothers and Spindler and went to the American Typefounders when that company took over their school department.

ANNOUNCING!!

Industrial Arts Test No. 2 Mechanical Drawing

By

Harry B. Nash, Director of Educational Research, West Allis Public Schools, West Allis, Wis.
Roy R. Van Duzee, Supervisor of Industrial Arts, West Allis Public Schools.

A standardized test in mechanical drawing that will test the student's knowledge of drafting as well as his actual ability to do mechanical drawing. It enables the teacher to check objectively the progress of individual students as well as the standing of the entire classes. The use of these tests will indicate exactly what the students know, what they can do, where they are strong or weak, and where special help and guidance are necessary.

The Test is provided in two Forms of equal difficulty, each of which will give an adequate picture of an individual or a class situation. Part I of each form uses the best types of question to determine the student's knowledge of principles and accepted facts. Part II requires an exhibition of actual ability to do mechanical drawing. The entire material has been developed from a nation-wide survey and represents three years of work under carefully controlled situations. Nothing has been left undone that will contribute to the scientific completeness of the tests. With this material the teacher can place his work on the highest plane of efficiency as determined by accurate, scientific data.

The material is furnished in Specimen and Complete sets. The Specimen set includes one copy each of the Test, Forms I and II, Parts I and II, Manual of Directions, Class Record, Lettering Scales, and Key Sheets. Complete Sets for Forms I and II are sold separately. Each Complete set contains 20 tests of Parts I and II, the Manual of Directions, Class Record, Lettering Scales and Key Sheets.

Specimen Set—$1.50
Complete Set Form I—$2.00
Complete Set Form II—$2.00

THE
BRUCE PUBLISHING COMPANY
Milwaukee, Wisconsin

News Notes

Continued from Page 13

New York State Vocational Teachers Meet at Schenectady

A meeting of the Eastern District Vocational Association was held at Schenectady, New York on the evening of February 15, 1930 at which vocational teachers from Albany, Troy, Cohoes, Scotia, Amsterdam, Schenectady and Watervliet were in attendance. Mr. Charles Clark, Principal of the Schenectady Vocational School presided. A greeting to the organization was tendered by Superintendent of Schenectady School, W. H. Pillsbury, followed by a summary of the progress of vocational education in New York State, made by Dr. L. A. Wilson, Assistant Commissioner for Vocational Education, New York State Education Department.

A lecture and demonstration on the photo-electric cell followed by moving picture diagrams was given by Mr. E.

Continued on Page 47

Electrical Instructors Here are the Motor Parts You Have Been Looking for

$1.79 Per Kit of Parts

Operated by two dry cells

Wt. two lbs. With Pulley for Running Small Toys to Boys' Delight

Pleased schools all over North America. Complete, all parts carefully machined—wire and job sheet, ready to assemble—can be readily placed in your course. Order sample and ask for bulletin C listing projects Red-i-Kut.

KUEMPEL CO. Electrical Department C Guttenberg, Iowa

SOCIAL SCIENCE LESSONS
FOR JUNIOR WORKERS
By
CLARENCE P. DAVEY
and
JAMES CAMERON
Instructors in the Boys' Junior Trade School of Detroit

A manual of lessons in social science designed to acquaint junior workers with a number of the most fundamental relationships involved in earning a living. The relation of economic conditions to one's life, social ideals and right civic standards, the frame work of government, and the rudiments of economics are some of the most significant topics with which it deals. *Social Science Lessons for Junior Workers* is designed for use in continuation and everyday trade schools, in ungraded classes in the regular day schools, and in adjustment groups.

8 vo, 92 Pages

THE CENTURY CO.
353 Fourth Avenue : New York
2126 Prairie Avenue : Chicago

APPROVED HOME MAKER H·M STANDARD PRODUCTS TRADE MARK HOME MAKERS EDUCATIONAL SERVICE

Practical Helps for

Home Economics Educators

Consisting of Educational Samples of high grade products and lesson plan suggestions published in our

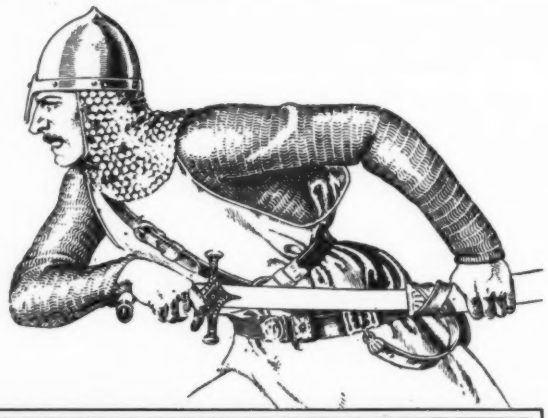
HOMEMAKERS BULLETIN

sent free to Home Economics educators. Write today and have your name entered on our "Live List" to receive these valuable aids to teaching.

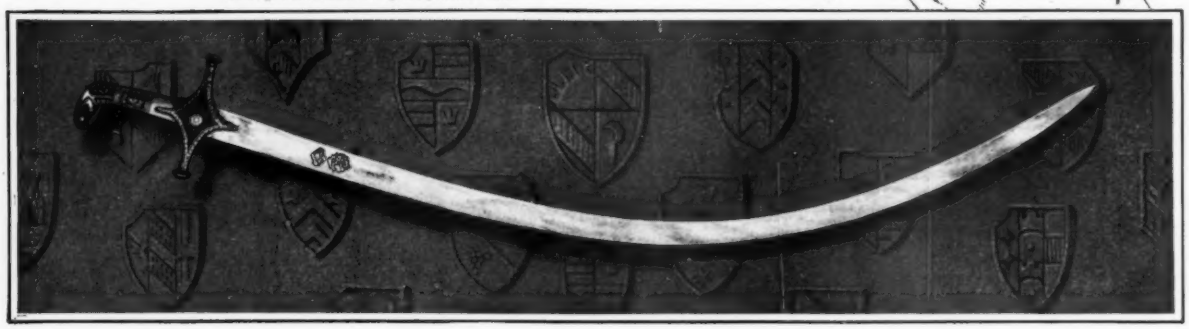
HOME MAKERS
EDUCATIONAL SERVICE
Gerald B. Wadsworth, *Proprietor*
2450 Grove St., Freeport, New York

PERU IND. **MODEL AIRPLANE SHOP**
SPECIAL MODEL PLANE PROJECT SHOP ASSORTMENTS
WRITE FOR OUR LOW PRICES ON KITS AND SUPPLIES TODAY!

Even the finest steel of old Damascus...



XVII Century Damascus sword now in the Metropolitan Museum of Art, New York



...could not equal the special steel in *Simonds* fine cutting tools

TREASURED by kings and warriors of old, weapons of finest steel were often the proudest possessions of an empire. Yet even the steel in the famous Damascus blades cannot equal the special alloy steel used in Simonds products.

With medieval swordsmiths, the choicest blades were the result of patience, perseverence...and luck! Today, Simonds uniform alloy steel is the product of scientific methods, modern facilities...and precision.

Each step in the making of Simonds electric furnace steels is controlled by specialized knowledge aided by the most complete equipment known in the steel industry. In the Simonds research department, metallurgists are constantly making tests to insure uniformly high quality. Simonds pioneered in developing the special cutting steels demanded by present-day production methods.

The perfection of Simonds electric furnace steel was the answer to the problems of maintaining the exacting standards of quality and uniformity for Simonds products. Consequently the name, Simonds, is recognized as a mark of perfection...the symbol of modern master-craftsmen...just as years ago the initial of the Damascus sword-maker meant unquestioned superiority.

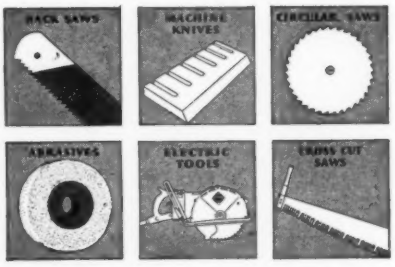
SIMONDS SAW AND STEEL COMPANY
ESTABLISHED 1832 . . . . FITCHBURG, MASS.

Boston . . Mass.
Memphis . Tenn.
Seattle . . Wash.
Chicago . . Ill.
Detroit . . Mich.
Portland . . Ore.
New York . N. Y.
New Orleans . La.
Atlanta . . . Ga.
San Francisco. Cal.
Los Angeles . Cal.

PRODUCERS OF *Circular, Band, Metal, Cross-Cut, Gang and Drag Saws; Machine Knives; Files; Hack Saw Blades; Tool Holder Bits; Saw Tools; Discs; Steel.*

AFFILIATED COMPANIES

WAPATT, INC., Pittsburgh, Pa., *Manufacturers of Portable Electric Saws and Tools* ~ THE ABRASIVE CO., Philadelphia, Pa., *Producers of Abrasive Grinding Wheels and Polishing Grain* ~ SIMONDS GUARANTEED CUTTER-HEAD COMPANY, Seattle, Wash., *Manufacturers of Guaranteed Cutter-Heads.*



SIMONDS INDUSTRIES
World's Largest Saw Makers

BACK OF THE EDGE..THE STEEL...BACK OF BOTH..SIMONDS

News Notes

Continued from Page 45

L. Manning, Research engineer of the General Electric Company. Mr. Ray Ellis, Superintendent of the Apprentice Department of the same organization then gave a first showing of a film entitled "Opportunity".

The remaining features of the program included a variety of entertainment. Before the close of the meeting the incoming president, Mr. Ray Goetz of Troy and the treasurer, Mr. Albert Bailley of Cohoes gave brief talks relative to the development of the association.

An Apprenticeship Program for the Metal Trades

The dearth of apprentices in the metal trades has brought about a return of the apprenticeship system and the formulation of an Apprentice Training Program by the Associated Industries of New York State in which technical men from industries, local manufacturers associations and educators gave aid.

The outline of the plan falls into eight divisions: the qualifications of apprentices including age, schooling, physical characteristics; the period of apprenticeship and shop schedule; studies related to the trade; rates of pay, piece work and bonus; apprenticeship agreement between the employer, the boy and his parents; local apprenticeship committees and their functions; records of progress and finally an apprenticeship certificate.

Shop Schedule

A model shop schedule is appended to the program, which covers 48 months or the entire period of apprenticeship. It reads as follows:

Div. No.	Division	Mos.
1	Preliminary	1
2	Drills	4
3	Engine Lathes	9
4	Turret and Screw Machines	4
5	Grinding	2
6	Milling	5
7	Planer, Shaper, Slotter	3
8	Boring Mills (Vert. and Hor.)	3
9	Layout for Drill, etc.	1
10	Group Assembly—Bench Work	3
11	Inspection	1
12	Erecting—Heavy Assembly	4
13	Miscellaneous—Millwrighting, Repairs	4
14	Tool Making	4
	Total	48

Related Subjects

The work in related subjects for machinists apprentices covers 36 weeks a year, 4 hours a week, for a period of 4 years. The subjects chosen at the time allotted to each is as follows:

Continued on Page 48

NEW WILEY BOOKS

YOU AND YOUR JOB

By The Hon. James J. Davis, *Secretary of Labor,*
and Dr. J. C. Wright, *Director,* Federal Board for Vocational Education

An inspirational and practical book by two nationally-known men. It seeks to bring out the dignity, the fellowship, the joy, and satisfaction of real work. It answers the question "Why we work." It shows why we should be trained for our job. It discusses the essentials of a successful life. 242 pages. 5¾ by 8. Price, $2.00.

FOUNDATIONS OF INDUSTRIAL EDUCATION

By F. Theodore Struck, Ph. D., Head of the Department of Industrial Education, Pennsylvania State College
Edited by J. C. Wright, *Director*
Federal Board for Vocational Education

This volume is designed as a textbook in industrial teacher-training classes. It discusses in an interesting and logical manner the underlying philosophy, the basic principles, the prevailing practices, the accepted terminology and recognized standards in trade and industrial education.

Ready June 30th

Other Recent Books of Interest

Methods and Teaching Problems in Industrial Education

By F. Theodore Struck, Ph. D.

This book, by a leader in industrial education, treats on the every-day problems that have to be met by teachers in the field of vocational and industrial education, and discusses methods and means of overcoming them.

214 pages. 5½ by 8½. Cloth, $2.75

Handbook of Teaching Skills

By W. H. Lancelot, Head of the Department of Vocational Education, Iowa State College.

"The best and clearest statement regarding teaching by problems that has yet appeared. It deals fully not only with the science and philosophy of teaching methods, but with its practical applications to teaching situations."

198 pages. 5 1-8 by 8. Cloth, $2.00

Guidance and Education of Prospective Junior Wage Earners

By Frederick M. Trumbull, Vocational Director, Rockford, Illinois.

The author offers construction suggestions leading to a clear understanding of two subjects pertaining to junior wage earners:

1—How to help children use to their best advantage the school facilities available to them.

2—How to improve and develop practical school service that will meet the specific and immediate needs of prospective junior wage earners whose educational outlook is limited.

298 pages. 5½ by 8. Cloth, $3.00

Efficiency in Education

By J. C. Wright, Director, Federal Board for Vocational Education, and C. R. Allen, Editor and Educational Consultant, Federal Board for Vocational Education.

Contains sound principles of business efficiency applied to the operation of the public schools, and the philosophy underlying these principles. It is full of sound ideas . . . and principles . . . highly stimulating . . . intensely interesting.

400 pages. 5 3-8 by 8. Cloth, $3.00

Efficiency in Vocational Education

By J. C. Wright and C. R. Allen.

Deals with the specific application in the field of vocational education of the philosophy and principles dealt with in "Efficiency in Education."

443 pages. 6 by 9. Cloth, $3.00

Supervision of Vocational Education

By J. C. Wright and C. R. Allen.

415 pages. 6 by 9. Cloth, $3.00

Administration of Vocational Education

By J. C. Wright and C. R. Allen.

436 pages. 6 by 9. Cloth, $3.00

Education and Vocations

By Theodore H. Eaton, Ph. D., Professor of Rural Education, Cornell University.

309 pages. 6 by 9. Cloth, $2.50

Teaching Agricultural Vocations

By R. M. Stewart, Professor of Rural Education, Cornell University, and A. K. Getman, Specialist in Agricultural Education, New York State Department of Education.

377 pages. 5½ by 8. Cloth, $3.00

John Wiley & Sons, Inc., NEW YORK

News Notes

Continued from Page 47

Shop Mathematics -	144 hours
Mechanical Drawing -	144 hours
Related science - -	144 hours
Accident prevention and hygiene - - -	72 hours
Economics - - -	72 hours
Total - - - - -	576 hours

The outline also includes in appendixes an itemized tool kit for apprentices, an apprentice record, a model application blank, an apprenticeship agreement, rules and regulations, the minimum requirements of shop training on bench, drill press, shaper, planer, lathe and other machines. The topics to be studied in mathematics, drawing, economics, civics, science and accident prevention are also enumerated in an appendix.

The outline concludes with some 75 subjects recommended for shop talks.

The program is offered "as a suggested basis on which an apprentice school may be operated in any community in New York State." The work has been thoroughly done, the subject matter is ample and sufficiently detailed in nature to be of value to any organization or community contemplating the establishment of an apprenticeship training school.

TEXAS

Teachers are Judged by Their Projects

The story is told of a young modern mother who brought her ailing baby to a doctor, who prescribed castor oil. "Oh! Doctor", she objected, "castor oil is such an old fashioned remedy". "Yes, Madam", he replied, "and babies are old fashioned things".

With this introduction we hope that you will bear with us while we talk about projects.

The writer has, during the current school year, visited approximately a hundred departments of vocational agriculture. An analysis of my reports convinces me that we (teachers and supervisors) should direct our efforts toward strengthening this part of our program.

What can we do to improve the situation? Exercising care in enrolling pupils will help. The test of who should be permitted to enroll is not where the boy lives (whether in town or country), but his ability and desire to carry out an adequate supervised practice program.

In order that the teacher may act intelligently in this matter he must know home situations of prospective pupils. This means visiting homes during summer months, it means getting acquainted with the parents of the boys—it means work. Is that one of the reasons that some of us do not do as much of it as we should do?

If teachers thought that their jobs depended on the kind of projects that their boys carry, they (some teachers) would give more attention to projects. But their jobs (in the final analysis) do depend on their projects, not because of what teacher-trainers or supervisors may think about the matter but because experience has clearly proven that school boards, without being entirely clear concerning the reason, will not indefinitely continue a department of vocational agriculture (or at least continue the teacher) whose teacher does not have good projects.

"Some Characteristics of a Good Evening School—Procedure"

Set up by Stephenville District Vocational Teachers Conference, March 5, 1930.

1. Teacher should arrive early and see that the place of meeting is properly lighted and heated when the class arrives. Each member should be welcomed as he arrives.
2. Teacher should start the lesson-problem on time and dismiss the class when the allotted time has been used.
3. Personal acquaintance between the teacher-student is essential to free discussion.
4. Each member should be encouraged to take part in the discussions that may arise during the evening. One man should not be permitted to monopolize the entire time.
5. Teacher should carefully instruct visiting speakers to devote their entire time to the assigned subject, and see that they do.
6. Charted data, visual material and the blackboard should be used freely in seeking a solution to each problem.
7. The teacher should make careful and definite preparation on the lesson-problem before the meeting.
8. Problems that are selected for consideration should be chosen with the greatest possible care. All problems should be drawn from the members of the class, and be sure that they are real problems.
9. Pool the farmers experience with the teacher's data by making external connection familiar to the farmer.
10. Summarize at the end of each lesson-problem and review all such summaries at the beginning of each lesson.
11. Provide courses of interest to all members of the class, one course for men and one for women, making provision to take care of children while the courses are running concurrently.
12. Have some member of the class to look after getting reports to the proper papers—publicity.
13. Visit an evening school that is being taught by some other teacher.
14. Start your evening school as early in the school year as possible for you are almost sure to encounter unexpected delays.

GREGG

Commercial Education Service

Every Gregg book is surrounded by a helpful service at your immediate disposal any time, anywhere.

This service takes the form of teacher's handbooks filled with practical teaching plans;

Scientific tests to keep you accurately informed of each student's progress;

Measuring scales, graph charts, and other record forms;

Supplementary laboratory material direct from the business office;

Two professional monthly magazines—*The Gregg Writer* for the student, and *The American Shorthand Teacher* for the teacher, keeping your school in constant touch with the latest thought in commercial education.

OVER 300 TITLES

The Gregg list of publications includes over 300 titles all dealing with some phase of commercial education.

Gregg texts have reached their present commanding position through years of research and investigation made with a view to finding the latest and best in commercial education.

Every Gregg textbook is written on the firing line. Every page is tested in actual classrooms before it appears in print. Every principle set forth has been proved over and over again.

LEADING TITLES

Gregg Shorthand
Rational Typewriting
Secretarial Duties
Rational Bookkeeping and Accounting
General Business Science
Applied Business English & Correspondence

Before selecting a commercial text, write us for a complete catalog of publications, or sample copies of books in which you are interested.

THE GREGG PUBLISHING CO.

New York — Chicago
San Francisco — Boston
Toronto — London